# Exhibit 18

# ADMINISTRATIVE APPEAL DECISION CLEAN WATER ACT **Pebble Limited Partnership** POA-2017-00271 ALASKA DISTRICT

#### **April 24, 2023**

- 1. Review Officer (RO): Melinda M. Larsen, U.S. Army Corps of Engineers (USACE), Northwestern Division (NWD), Portland, Oregon. Administrative review of this specific appeal was delegated to the NWD Review Officer while the decision authority remained with the Pacific Ocean Division (POD) Engineer. Upon initial receipt, the POD Engineer delegated review of this appeal to the USACE Southwestern Division (SWD) RO. The SWD RO departed the agency in May 2021, and review was delegated to Ms. Larsen beginning on August 6, 2021.
- 2. Appellant: Pebble Limited Partnership (PLP)
- **3. Authority**: Section 404 of the Clean Water Act (CWA) (33 USC 1344 et seq.)
- 4. Receipt of Request for Appeal: January 19, 2021
- 5. Appeal Conference and site visit (Conference): July 21-22, 2022. A virtual site visit was conducted in conjunction with the appeal conference in lieu of traveling to the remote project site.
- 6. Summary: The Appellant is appealing the Alaska District's (District) November 25, 2020 denial of U.S. Army Corps of Engineers permit request number POA-2017-00271.

The Appellant is proposing to develop the Pebble copper-gold-molybdenum porphyry deposit as a surface mine in southwest Alaska. The closest communities are the villages of Iliamna, Newhalen, and Nondalton, each approximately 17 miles from the deposit. The project consists of four primary elements: the mine site, the Diamond Point port, the transportation corridor including concentrate and water return pipelines, and the natural gas pipeline and fiber optic cable. These project components are described in the Pebble Project Department of the Army Application for Permit POA-2017-00271 dated June 8, 2020,1

<sup>&</sup>lt;sup>1</sup> ROD\_000008. Permit application is attached to the ROD at Appendix A, located at ROD 000035-000113.

Permanent impacts at the mine site would total 2,113 acres of wetlands and open waters and 99.7 miles of streams. Temporary mine site impacts would be less than one acre of wetlands and open waters and less than 0.1 mile of streams. Indirect impacts associated with the mine site would total 845 acres of wetlands and open waters and 29.9 miles of streams.

Permanent impacts from construction of the transportation corridor would result in the permanent loss of 63 acres of wetlands and open waters and 5.7 miles of streams. Temporary transportation corridor impacts would consist of 36.1 acres of wetlands and open waters, and 3.9 miles of streams. Indirect impacts to 619.3 acres of wetlands and open waters and 48.6 miles of streams would also occur.

Permanent impacts associated with construction of the Diamond Point port would result in the permanent loss of 4 acres of wetlands and marine waters and less than 0.1 mile of streams. Temporary port site impacts would occur to 88 acres of wetlands and marine waters and less than 0.1 mile of streams. Indirect port site impacts would consist of less than 1 acre of wetlands and 0.4 mile of streams.

Construction of the natural gas pipeline and fiber optic cable would temporarily impact 644 acres of wetlands and other waters and 2.2 miles of streams. Indirect impacts would consist of 6 acres of wetlands and marine waters and 0.8 mile of streams. Permanent impacts associated with the roadside portion of the natural gas pipeline are included above in the transportation corridor impacts. The portion of the pipeline along the seabed of the outer continental shelf inlet is approximately 200 feet wide and 80 miles long, and requires authorization by the Bureau of Safety and Environmental Enforcement 2

The Appellant submitted five reasons for appeal. Each of these reasons contains multiple supporting points as outlined below.

For reasons detailed in this document, the following reasons for appeal are found to have merit:

- a. A portion of RFA I.C.
- b. RFAs II.A., II.B.1., II.B.2., II.B.3., and II.B.5.
- c. RFAs III.A.1., a portion of RFA III.A.3., III.B.1., and III.B.3.

<sup>&</sup>lt;sup>2</sup> ROD 000008-12.

The following reasons for appeal are found not to have merit:

- a. RFAs I.A., I.B., two portions of RFA I.C., and I.E.
- b. RFAs II.B.4, II.B.6., and II.C.
- c. The introductory portion of RFA III., RFAs III.A.2., two portions of RFA III.A.3. III.B., and III.B.2.
- d. RFAs IV.A., IV.B., IV.C., and IV.D.
- e. RFA V.

RFA I.D. was determined not to be a valid reason for appeal.

The permit decision is remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision.

- 7. Information Received and Its Disposition during the Appeal Review: The Administrative Record (AR) is limited to information contained in the record as of the date of the Notification of Administrative Appeal Options and Process form. No new information may be submitted on appeal<sup>3</sup>; however, to assist the Division Engineer in making a decision on the appeal, the RO may allow the parties to interpret, clarify, or explain issues and information already contained in the AR. Such interpretation, clarification, or explanation does not become part of the AR because the District Engineer did not consider it in making the permit decision. Consistent with Corps regulations, the Division Engineer may use such interpretation, clarification, or explanation in determining whether the AR provides an adequate and reasonable basis to support the District Engineer's decision.4 The information received during this appeal review and its disposition, is as follows:
- Request for Appeal sent by the Appellant's representative, Steptoe & Johnson, LLP, received by the USACE POD on January 19, 2021.
- b. Notice from POD to the Appellant accepting the Request for Appeal and stating that the request met the required criteria for an administrative appeal, sent by letter dated February 24, 2021.
- c. The AR a copy of which the District provided to POD and the Appellant on May 20, 2021.

<sup>&</sup>lt;sup>3</sup> 33 CFR § 331.2.

<sup>&</sup>lt;sup>4</sup> 33 CFR § 331.7(f).

- d. Appeal Conference and virtual site visit, in accordance with 33 C.F.R. §331.7, held by the RO on July 21-22, 2022. The goal of the Conference was to summarize and clarify the Appellant's and the District's positions as they relate to the appeal. Topics discussed at the Conference are summarized in the document titled "Final MFR Pebble Appeal Conference."
- e. Several documents were provided by the Appellant to the District and the RO at the Conference:
  - (1) U.S. Army Public Affairs Press Release, August 24, 2020.
  - Email (Headwaters Koktuli Wetland Data), September 4, 2020.
  - Email (PLP Mitigation Area Wetlands), October 15, 2020.
  - Meeting Invitation (Pebble Mitigation), September 8, 2020.
  - (5) Meeting Invitation (PLP Mitigation Credit Discussion), September 18, 2020.
  - (6) Presentation (re: Compensatory Mitigation), August 2020.
- The District reviewed the listed documents and determined that the documents should not be added to the AR, as they were not considered directly or indirectly by the decision-maker. A follow-up discussion with the District indicated that the wetland data attached to items e.2 and e.3 above, which was not provided at the Conference, was not located; therefore, the District did not make a determination specific to the wetlands data attachments.
- g. The Appellant also requested, via email dated May 4, 2022, that an internal District email dated November 16, 2020, transmitting the Takings Implication Assessment (TIA) and its attachment be added to the AR. The RO has determined that inclusion of the TIA in the AR is not appropriate. While a TIA is required for a permit denial, it is an internal, pre-decisional document subject to section (b)(5) of the Freedom of Information Act (FOIA) and subject to attorney-client privilege.<sup>5</sup> A discussion on the TIA is included in the "Additional Information" section on page 78.

<sup>&</sup>lt;sup>5</sup> 5 U.S.C. 552, Freedom of Information Act (FOIA) https://www.foia.gov/foiastatute.html.

- h. Additional information received as a follow-up to the Conference:
- (1) A document titled "11 9 2020 Final Plan Review and Determination\_of\_Compliance.pdf" received from the Appellant via email dated February 10, 2023, in response to a request from the RO. The RO provided this document to the District, and the District added it to the AR, at AR 0017750\_000850A to 0017750\_000978A.
- (2) A document titled "B\_7\_11\_19\_2020 Attachment B7\_Factual\_ Determinations.pdf," with Bates Numbers visible, received via email dated November 14, 2022, in response to a request from the RO.
- (3) An excel version of the document "POA-2017-271 Attachment B7 Factual Determinations Final.xlsx" received via email from POA, dated November 14, 2022, in response to a request from the RO.

# APPEAL EVALUATION, FINDINGS, AND INSTRUCTIONS TO THE ALASKA DISTRICT ENGINEER

## **Appellant's Reasons for Appeal (RFAs)**

- I. The Significant Degradation Finding is Contrary to Law and Unsupported by the Record.
- **1. FINDING:** Two portions of RFA I.C., RFAs I.A., I.B., and I.E. do not have merit. A portion of RFA I.C. has merit. RFA I.D. was determined not to be a valid reason for appeal.
- **2. ACTION:** The portion of RFA I.C. relative to the District's analysis of the severity of impacts within a HUC 12 watershed<sup>6</sup>, as discussed below on pages 21-23, is remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision. Specifically, the District should consider the scope of analysis under CWA 404(b)(1) and ensure that the AR accurately documents the analysis and conclusion, specifically when making quantitative statements regarding impacts within a particular HUC.
- **3. DISCUSSION:** The Appellant asserts that the finding of significant degradation runs counter to the record, the 404 regulations, and Alaska District precedent. Specifically, the Appellant states that it was informed in a June 2020 meeting that the proposed project would have "more than trivial" impact in the Koktuli watershed, leading to a finding of significant degradation for that watershed. The Appellant also states that the District found that the significant degradation finding would lead to "more onerous mitigation than would otherwise be required, including requiring in-kind mitigation (preservation) at a higher mitigation ratio and within a more limited geographic scope." The Appellant believes there is no basis or precedent for using significant degradation to impose what it refers to as "extreme compensatory mitigation requirements."

The following RFAs (I.A. – I.E.) discuss each of these assertions individually.

<sup>&</sup>lt;sup>6</sup> HUC stands for Hydrologic Unit Code. It is a hierarchical land area classification system created by the United States Geological Survey (USGS) The number of digits represents the scale of the hydrologic region or watershed. The more digits, the smaller the geographic area. For example, Alaska is represented overall by a two-digit HUC (19), while HUC 19030206 represents the smaller watershed of Lake Iliamna.

<sup>7</sup> Request for Appeal 12.

# I.A. "More Than Trivial" is Not an Appropriate Standard for Assessing Significant Degradation.

RFA I.A. begins with the Appellant citing 40 C.F.R. §230.10(c). This portion of RFA I.A. is discussed in conjunction with RFA I.B. below.

As stated by the Appellant, the District found that the proposed project would result in significant degradation of the aquatic ecosystem.8 The Appellant states that it was informed of this conclusion by the District during a June 2020 meeting.9 During the Conference, the RO asked the District where in the AR were notes or records of the June 25 and June 30, 2020 conversations with the Appellant. The District was unable to recall specifics of those meetings or point to notes in the AR but stated that it was likely that the discussion of significant degradation did occur during the June meeting(s).<sup>10</sup> The District pointed to the Record of Decision (ROD) attachment B1, which it stated includes a discussion of the more than trivial standard. Upon further review, the RO believes the correct citation is to ROD Attachment B2.1., as section B2.1.1.3 is the only location in the ROD that addresses the term "more than trivial". ROD Attachment B1 is the response to comments section. Section B2.1.1.3. discusses how the District, in cooperation with the US Environmental Protection Agency and the US Fish and Wildlife Service (404(q) agencies) completed the factual determinations matrix<sup>11</sup>:

As documented in the Factual Determination Matrix (404(b)(1) Matrix), the 404(q) agencies began to complete the 404(b)(1) Matrix by determining, for each category of impact or effect under Subparts C through F, whether there would be a direct, secondary and indirect, and/or cumulative effects to the aquatic resources as a result of the alternative that had been identified as the Least Environmentally Damaging Practicable Alternative (LEDPA). The 404(g) agencies then determined the magnitude of the direct, secondary and indirect, and/or cumulative effects (Significant, Minor Effect (Long Term), Minor Effect (Short Term), Negligible Effect, or No Effect, or Not Applicable (N/A)). 'Significant' or 'significantly', as used in the factual determinations, is consistent with the definition as given in the preamble to the 404(b)(1) Guidelines (Vol. 45 FR No. 249 page 85343), and in this context means 'more than trivial'.12

The Appellant's position is that "more than trivial" is not the correct threshold to reach a significant degradation finding. The Appellant correctly states that the word "significant" is not defined in the Clean Water Act (CWA) or the section 404 regulations. The District cites page 85343 of the 1980 preamble to the 404(b)(1) guidelines, which reads as follows:

<sup>&</sup>lt;sup>8</sup> ROD 000026.

<sup>&</sup>lt;sup>9</sup> Request for Appeal 13.

<sup>&</sup>lt;sup>10</sup> MFR 3.

<sup>&</sup>lt;sup>11</sup> Incorporated into the ROD as Attachment B7.

<sup>&</sup>lt;sup>12</sup> ROD 000131.

Section 230.10(c) provides that discharges are not permitted if they will have "significantly" adverse effects on various aquatic resources. In this context, "significant" and "significantly" mean more than "trivial", that is, significant in a conceptual rather than a statistical sense. Not all effects which are statistically significant in the laboratory are significantly adverse in the field.

The Appellant claims there is "more recent USACE guidance and practice" that establishes that significant does not equate to "more than trivial". 13 The Appellant points to a document on USACE Savannah District's (SAS) regulatory webpage, titled "GUIDELINES FOR PREPERATION (sic) OF ANALYSIS OF SECTION 404 PERMIT APPLICATIONS PERSUANT TO THE SECTION 404(B)(1) GUIDELINES OF THE CLEAN WATER ACT (40 C.F.R., SECTION 230)". 14 This document summarizes a stepwise process for evaluation under the 404(b)(1) guidelines, and equates "significant" to "major". This undated and unsigned reference document appears to be a guide produced and used by SAS. Many of the concepts are extracted from regulation, but the document itself does not represent law, regulation, executive order, or officially promulgated Corps Policy guidance. During the Conference, the District stated this document was not used in its review, and that POA does not have a similar document in use.

The SAS document describes evaluating factors using no effect, negligible, minor, and major (significant). While the District stated it does not use the specific document in question, the rating of each factor is nearly identical, as the District states in the above paragraph "(Significant, Minor Effect (Long Term), Minor Effect (Short Term), Negligible Effect, or No Effect, or Not Applicable (N/A).)"

The Appellant states that "more than trivial" would most closely align with "negligible" or "minor", and points to an EPA/Army Memorandum, which indicates that "small discharges to construct individual driveways" is an example of an activity that would constitute "trivial impacts." 15

<sup>&</sup>lt;sup>13</sup> Request for Appeal 13.

<sup>14</sup> https://www.sas.usace.army.mil/Portals/61/docs/regulatory/IP\_SAS\_404\_b\_1\_ Guidelines.pdf.

<sup>&</sup>lt;sup>15</sup> Memorandum: Appropriate Level of Analysis Required for Evaluating Compliance with the CWA Section 404(b)(1) Guidelines Alternatives Requirements, https://www. epa.gov/cwa-404/memorandum-appropriate-level-analysis-required-evaluatingcompliance-cwa-section-404b1.

The referenced EPA/Army Memorandum<sup>16</sup> is a discussion of the flexibility allowed when applying the Section 404(b)(1) Guidelines, particularly related to minor projects. The sentence the Appellant refers to uses the phrase "negligible or trivial impacts" and occurs in a list of factors to consider "[i]n reviewing projects that have the potential for only minor impacts on the aquatic environment." The next paragraph provides more context:

This guidance concerns application of the Section 404(b)(1) Guidelines to projects with minor impacts. Projects which may cause more than minor impacts on the aquatic environment, either individually or cumulatively, should be subjected to a proportionately more detailed level of analysis to determine compliance or noncompliance with the Guidelines. Projects which cause substantial impacts, in particular, must be thoroughly evaluated through the standard permit evaluation process to determine compliance with all provisions of the Guidelines.<sup>17</sup>

The EPA/Army Memorandum does not, however, provide definitions for the terms significant or major. Minor in this context is described (in part) as "associated with activities that generally would have little potential to degrade the aquatic environment." The Memorandum does not describe a scale or threshold for how much more than minor is considered significant. Likewise, the 404(b)(1) regulations do not provide a scale or threshold for how much more than trivial would equate to significant degradation. This is appropriate, since the guidelines are structured to provide the reviewer flexibility to apply best professional judgement in evaluating a wide variety of projects along the entire spectrum of the severity of impacts.

The Appellant further points to the American Heritage Dictionary of the English Language (5th ed. 2011) definition of the word significant: "having or likely to have a major effect." While this is one of the definitions, other dictionary definitions vary slightly. For example, Merriam Webster defines "significant" as: 1) having meaning especially: suggestive; 2a) having or likely to have influence or effect: important; also: of a noticeably or measurably large amount; 2b) probably caused by something other than mere chance. 18

In the context of the 404(b)(1) guidelines analysis, the District's determination that significant is equivalent to "more than trivial" is appropriate, as it comes directly from regulation. There is no evidence that the District misapplied this portion of the CWA 404(b)(1) preamble language. RFA I.A. does not have merit.

<sup>17</sup> Id.

<sup>&</sup>lt;sup>16</sup> ld.

<sup>&</sup>lt;sup>18</sup> Significant. 2023. In *Merriam-Webster.com*. Retrieved January 11, 2023 from https://www.merriam-webster.com/dictionary/significant.

#### I.B. The Finding of Significant Degradation is Inconsistent With the Record.

**Inadequate support for significant degradation in the AR.** The Appellant states that the significant degradation finding is not supported in the AR. Specifically, the Appellant states that the 404(b)(1) Matrix (Attachment B7) only refers to speculative impacts and does not contain any substantiation.

The Appellant cites 40 C.F.R. §230.10(c), which states, in part:

Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations, and tests required by subparts B and G, after consideration of subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts.

The Appellant concludes "[i]n other words, such a finding must be based on facts and data, not speculation." The Appellant also states that the AR does not support the findings of significant adverse effects for any of the factors listed as "significant", and objects to the lack of explanation of the weighting of the various factors evaluated. The Appellant lists several examples of how it claims the AR does not support the findings. The examples provided and discussed by the Appellant are "Fish (§ 230.31)", Recreational and Commercial Fisheries (§ 230.51), Water-Related Recreation (§ 230.52), and Suspended Particulates (§ 230.21).

During the Conference, the District was asked if it agreed that the ROD conclusions were different than the conclusions in the Final Environmental Impact Statement (FEIS). The District pointed out that the FEIS does not conclude significant or insignificant, and that the scale analyzed in the ROD is not the same as that analyzed in the FEIS. The District went on to discuss how there is a difference between the requirements of the NEPA analysis in the FEIS, and the ROD. The ROD addresses all elements including Section 404 of the CWA & Section 10 of the Rivers and Harbors Act (RHA). The example discussed was regarding commercial fisheries which, when considered alone, the FEIS concluded no measurable impacts, but when considering recreational and commercial fisheries together, the District determined the impact is significant as determined in the ROD.<sup>21</sup>

The FEIS supports this, stating that "[i]mpacts to wetlands, open freshwaters, estuarine waters, marine waters, rivers, streams, and other waters are assessed from a NEPA perspective, which differs from how they are treated under the 404(b)(1) guidelines."<sup>22</sup>

<sup>&</sup>lt;sup>19</sup> Request for Appeal 13.

<sup>&</sup>lt;sup>20</sup> Request for Appeal 15-19.

<sup>&</sup>lt;sup>21</sup> MFR 7-8.

<sup>&</sup>lt;sup>22</sup> FEIS 003473.

The Appellant objects to the significant degradation findings relative to fish, and recreational and commercial fisheries. The Appellant uses the word "fish" pointing to 40 C.F.R. §230.31, but it is important to note that §230.31 applies to not just fish, but all aquatic organisms:

Aquatic organisms in the food web include, but are not limited to, finfish, crustaceans, mollusks, insects, annelids, planktonic organisms, and the plants and animals on which they feed and depend upon for their needs. All forms and life stages of an organism, throughout its geographic range, are included in this category.<sup>23</sup>

Specifically, the Appellant states that the 404(b)(1) Matrix<sup>24</sup> is "short on analysis but speculates that it is probable that the project would lead to streams with lower productivity."<sup>25</sup> The Appellant claims that this statement is contrary to the FEIS, stating that the FEIS found no significant impacts to the population of fish or fish habitat in the Koktuli. The FEIS states that primary impacts in or near the site:

Mine site development would permanently remove approximately 22 miles of fish habitat in the North Fork Koktuli (NFK) and South Fork Koktuli (SFK) drainages

and:

This loss of habitat is not expected to have a measurable impact on fish populations based on physical habitat characteristics and fish density estimates in the affected reaches. <sup>26</sup>

The District was asked at the Conference about differences between ROD conclusions and FEIS conclusions. The District stated that the FEIS evaluated based on the scale of Bristol Bay, while the ROD used a smaller scale.<sup>27</sup> The ROD states "the magnitude of the impacts at the mine site were determined based upon the scale of the North Fork and South Fork Koktuli River and Upper Talarik Creek watersheds.<sup>28</sup>

The mine site development would not just remove fish habitat; it would remove instream habitat for all aquatic organisms, as well as over 2,000 acres of wetland habitat. Given the extent and scale of impacts, it was reasonable for the District to conclude that the effects to aquatic organisms would be significant. *This portion of RFA I.B. does not have merit.* 

<sup>24</sup> ROD\_000310-513.

<sup>28</sup> ROD 000131.

<sup>&</sup>lt;sup>23</sup> 40 CFR §230.31(a).

<sup>&</sup>lt;sup>25</sup> Request for Appeal 15.

<sup>&</sup>lt;sup>26</sup> FEIS\_005034.

<sup>&</sup>lt;sup>27</sup> MFR 7.

Recreational and Commercial Fisheries. The Appellant objects to the District's conclusion relative to recreational and commercial fisheries (40 C.F.R. §230.51). The Appellant cites the FEIS, which states:

The mine site would result in loss of fish habitat in the upper North and South Fork Koktuli rivers. This disturbance would not be expected to have measurable effects on the number of adult salmon returning to the Nushagak and Kvichak district (see Section 4.24, Fish Values). The mine site area is not connected to the Togiak, Ugashik, Naknek, and Egegik watersheds and is not expected to affect fish populations or harvests from these watersheds. The mine site is not expected to affect Cook Inlet commercial fisheries.<sup>29</sup>

The Appellant states that the ROD provides no new information that contradicts this finding, and objects to the "cryptic notes" provided by the District:

Spills of great concern; build out would amplify the issues; potential for chemical contamination/ releases of tailings as effect/cumulative effects; even without a spill, fugitive dust may affect use; marine and fresh secondary impacts with a spill or dust.<sup>30</sup>

The Appellant states that these statements focus on speculation about a tailings spill/release and fugitive dust, stating that neither of these factors was found to be significant in the record.31 The Appellant asserts that the only spill or release that could pose a risk to population levels of fish/habitat is a catastrophic Tailings Storage Facility (TSF) failure, which, as discussed in RFA III below, was found to be not reasonably foreseeable under the Public Interest Review (PIR).

Recreational and commercial fisheries, in the context of the 404(b)(1) guidelines consists of harvestable fish, crustaceans, shellfish, and other aquatic organisms used by man.<sup>32</sup> The regulation does not require the District to evaluate population level risk, rather, it provides a list of possible loss of values:

The discharge of dredged or fill materials can affect the suitability of recreational and commercial fishing grounds as habitat for populations of consumable aquatic organisms. Discharges can result in the chemical contamination of recreational or commercial fisheries. They may also interfere with the reproductive success of recreational and commercially important aquatic species through disruption of migration and spawning areas. The introduction of pollutants at critical times in their life cycle may directly reduce populations of commercially important aquatic organisms or

<sup>30</sup> ROD 000457.

<sup>&</sup>lt;sup>29</sup> FEIS 004347.

<sup>&</sup>lt;sup>31</sup> Request for Appeal 16.

<sup>&</sup>lt;sup>32</sup> 40 CFR §230.51.

indirectly reduce them by reducing organisms upon which they depend for food. Any of these impacts can be of short duration or prolonged, depending upon the physical and chemical impacts of the discharge and the biological availability of contaminants to aquatic organisms. 33

The Appellant states the only population level spill risk would be a catastrophic failure and faults the District for an "attempt to base its significant degradation determination on a TSF failure."<sup>34</sup> However, the record does not support the Appellant's statement that the District's reference to spills was limited to TSF failure. A full breach is not the only potential spill risk, as outlined in FEIS Section 4.27, which evaluates multiple potential spill scenarios. For example, with regard to a diesel spill's potential effect on commercial fisheries: "In the longer term, a spill could result in an extremely limited reduction in harvest value if the spill killed juvenile salmon or eggs that might have been future adult returners."35 Section 4.27 also evaluates the potential for a spill from the concentrate pipeline at 23% over the life of the 20-year project, describing the following potential impacts to fish: "Depending on location and seasonality, there could be permanent impacts to an age class of fish due to the increased volume of concentrate slurry spilled. No measurable impacts to fish from acid rock drainage (ARD) or ML [mineral leaching] would be expected."36

As previously stated, the District indicated the scale of the FEIS analysis was Bristol Bay, while the scale analyzed in the ROD was narrower. Contrary to the Appellant's assertion, there is no evidence that the District attempted to base its significant degradation finding for recreational and commercial fisheries solely on a TSF failure, rather, the District acknowledged it was one of the possible scenarios. This portion of RFA I.B. does not have merit.

Fugitive Dust Impacts to Fish. The Appellant also objects to the District's reference to the potential impacts from fugitive dust in the 404(b)(1) Matrix. The Appellant states that the record does not reflect any material impacts to fish from fugitive dust.

#### The FEIS found that:

Implementation of dust suppression, BMPs, and enforcement of slow speed limits at all stream crossings would minimize dust-related impacts to aquatic ecosystems during project operations and post closure.<sup>37</sup>

and:

<sup>&</sup>lt;sup>33</sup> 40 CFR §230.51.

<sup>&</sup>lt;sup>34</sup> Request for Appeal 16.

<sup>&</sup>lt;sup>35</sup> FEIS\_005267.

<sup>&</sup>lt;sup>36</sup> FEIS 005321.

<sup>&</sup>lt;sup>37</sup> Request for Appeal 16, citing FEIS 005072.

The concentration of metals in surface water as a result of dust deposition would not result in exceedances of the most stringent water quality criteria in baseline conditions or WTP outflow conditions.<sup>38</sup>

and;

Chapter 4, Section 4.24 of the FEIS describes an analysis of impacts from dust deposition and finds that "bioaccumulation of heavy metals in the food chain would not be expected to occur from development of the mine site."<sup>39</sup>

The comment the Appellant refers to from the 404(b)(1) Matrix is in the comments field associated with direct and indirect effects to fisheries, and states "fugitive dust may affect use." Under the column "where analyzed in the FEIS", the District refers to Chapter 4, in the Subsistence section at 4.9.3.1., titled "Changes in Resource Availability." <sup>40</sup> This section includes a discussion of fugitive dust:

The extent of impacts from fugitive dust would occur in a narrow corridor on either side of the roadways as described in Section 4.26, Vegetation. The heaviest dust deposition would be anticipated to occur within 35 feet of the road; vegetation collection and berry picking activity may avoid dusted areas. Some localized impacts of dust settlement in stream channels where fishing occurs may be noticeable, but implementation of dust suppression and enforcement of slow speed limits at all stream crossings would minimize dust-related impacts to aquatic ecosystems (see Chapter 5, Mitigation). Impacts would be expected to extend through the life of the project and would be localized to the area of disturbance. Fugitive dust from construction, roadways, and mining activities deposited in streams and on berries, other traditionally used plants, plants that animals eat, and water, would discourage subsistence users from harvesting these resources near the areas affected by the mine site and the transportation corridor. Impacts associated with fugitive dust may be realized if the project were permitted, constructed, and built.41

This discussion supports the District's statement that "fugitive dust may affect use." There is no evidence the District applied undue weight to this factor of its analysis. *This portion of RFA I.B. does not have merit.* 

**Water-related recreation.** The Appellant objects to the District's statements in the 404(b)(1) Matrix relative to water-related recreation (40 C.F.R. §230.52). The District stated in the 404(b)(1) Matrix that the "region is an international destination for sport

<sup>40</sup> ROD\_000456.

<sup>&</sup>lt;sup>38</sup> Request for Appeal 16, citing FEIS 005060.

<sup>&</sup>lt;sup>39</sup> Ibid.

<sup>&</sup>lt;sup>41</sup> FEIS 004397.

fishing; [b]oth NFK and SFK are managed for recreation."<sup>42</sup> The Appellant objects to these statements, indicating that the FEIS found recreational use of project area watersheds to be limited. However, neither of the District's statements is untrue. The region is well-known for its fisheries and under the Bristol Bay Area Plan, regions 6, 8, 9, and 10, which the project would fall in, have portions that are managed for public recreation.<sup>43</sup> There is no evidence the District applied undue weight to this factor of its analysis. *This portion of RFA I.B. does not have merit.* 

**Fugitive Dust Impacts to Recreational Use.** The Appellant states that "[i]n the Factual Determination Matrix, the District asserts that "fugitive dust may impact float use, fishing, and hunting especially in the UTC.""<sup>44</sup> The Appellant states this is in direct contradiction to the FEIS:

[The] magnitude of impacts from fugitive dust to recreational activities would be low because recreational activities are limited that close to the mine site. These effects would be certain if the mine is permitted and built, but implementation of dust suppression, on-site water treatment processes, and enforcement of slow speed limits at all stream crossings would minimize dust-related impacts to vegetation, water quality, and aquatic ecosystems.<sup>45</sup>

It is well established in the record that the secondary and indirect effects of the project are large, and include dust, dewatering, and fragmentation, among others. <sup>46</sup> It is reasonable for the District to conclude, in the absence of an approved Compensatory Mitigation Plan (CMP) to sufficiently offset these impacts, that these proposed impacts would contribute to significant degradation. *This portion of RFA I.B. does not have merit.* It is not known whether the consideration of the commercial and recreational fisheries factor would have the same outcome with the incorporation of an approved CMP to properly offset the impacts from fugitive dust. The CMP is discussed at length in RFA II below.

**Visual/Aesthetic Impacts.** The Appellant points to visual/aesthetic impacts and expresses that the distinction between "perceived" and "actual" impacts is unclear:

The project would change the area visually ... Cumulative would add greater perceived and actual aesthetics impacts.<sup>47</sup>

<sup>43</sup> Bristol Bay Area Plan for State Lands, Adopted April 2005 Revised September 2013, Alaska Department of Natural Resources Division of Mining, Land & Water Resource Assessment & Development Section. Publicly available at https://www.arlis.org/docs/vol1/H/904360312.pdf.

<sup>&</sup>lt;sup>42</sup> ROD 000461.

<sup>&</sup>lt;sup>44</sup> ROD\_000461; UTC refers to Upper Talarik Creek watershed.

<sup>&</sup>lt;sup>45</sup> FEIS 004323.

<sup>&</sup>lt;sup>46</sup> See, e.g. ROD 000310; ROD 000181-82.

<sup>&</sup>lt;sup>47</sup> ROD 000465.

While the District does not define it, in this context "perceived" impacts refers to a subjective judgement people make about the presence or severity of an impact. The Appellant also points out that the District does not explain how visual impacts to recreational users would be significant if there are limited users due to the remote location of the project. The Appellant states that the FEIS found that mine site visual effects are limited to high elevation viewpoints and therefore would not be significant.<sup>48</sup>

The Appellant references FEIS\_004447, in Chapter 4, Section 4.11 (Aesthetics) of the FEIS, without a specific citation. The page the Appellant points to does not state that visual effects would not be significant. It does state that visibility would generally be limited to higher elevation areas and points out that it would be highly visible to passengers on overflights. This section also includes the following discussion:

In terms of magnitude and extent, impacts of the mine site perceived by residents, recreationists, or subsistence users in the EIS analysis area for the mine site would be of moderate to strong visual contrast, have VE or D<sup>49</sup> scale dominance, and occur in the immediate foreground, due the remoteness of the site and the existing topographic and vegetation screening. Viewer duration would be intermittent to prolonged, depending on the activity of the viewer. If remote recreation or subsistence use should occur in the foreground or middle-ground distance zone of the mine site and in the seen area, the magnitude of impacts would increase as a function of distance. The duration of impacts would be long-term, extending beyond the life of the project. The likelihood of impacts would be certain.<sup>50</sup>

There is additional information in FEIS Chapter 4, Section 4.11 regarding visibility of light from vehicle traffic.

Vehicle traffic may be visible from areas along the Gibraltar and Newhalen rivers where recreational and subsistence fishing takes place, especially where the port and mine access roads would cross the rivers. Movement of vehicles would be more apparent during dark sky conditions because vehicle lighting would be evident.51

The District's comments in the 404(b)(1) Matrix with regard to visual impacts of the project are adequately supported in the FEIS, therefore this portion of RFA **I.B.** does not have merit. It is not known whether the consideration of the aesthetics factor would have the same outcome with the incorporation of an approved CMP that adequately offsets direct and indirect impacts. The CMP is discussed at length in RFA II below.

<sup>49</sup> See FEIS 004444: VE is "visually evident"; D is "dominant".

<sup>&</sup>lt;sup>48</sup> FEIS 004447.

<sup>&</sup>lt;sup>50</sup> FEIS 004447.

<sup>&</sup>lt;sup>51</sup> FEIS 004449

Recreation Impacts at Diamond Point Port. The Appellant states that the District comments relative to recreation impacts at the Diamond Point Port in Iliamna Bay are outside the Koktuli watershed and do not support a significant degradation finding in the Koktuli.<sup>52</sup> Additionally, the Appellant states that the FEIS does not identify significant recreation impacts associated with Diamond Point Port.

Geographic extent of effects would be limited to a relatively small portion of Cook Inlet. There are nearby alternate locations where such recreational activities could occur; therefore, impacts would be low magnitude but would be long term, lasting for the life of the project and would occur if the Diamond Point port is permitted and built.<sup>53</sup>

The decision in the ROD does not specifically state that the significant degradation finding is limited to the Koktuli watershed. It states: "As documented in Attachment B of this ROD. I have determined that the proposed discharge does not comply with the 404 (b)(1) Guidelines because the proposed project will result in significant degradation of the aquatic ecosystem."54 As noted above, the District states in the FEIS that recreational impacts in the Diamond Point Port are low magnitude and long term. It is not known whether the consideration of the recreation factor would have the same outcome with the incorporation of an approved CMP that adequately offsets direct and indirect impacts. The CMP is discussed at length in RFA II below. However, there is no evidence that the District improperly weighted its analysis of this 404(b)(1) factor. This portion of RFA I.B. does not have merit.

Suspended Particulates. The next factor the Appellant discusses regarding the significant degradation finding is suspended particulates (40 C.F.R. §230.21). The Appellant points to the FEIS, which states impacts to shallow groundwater at the mine site would be limited to the capture zone and thus would be treated prior to discharge:

Concentrations of metals in shallow groundwater may also increase because of the disruption of wetlands and increased sedimentation, resulting in an increase in suspended particulates with adsorbed metals. If these effects on groundwater conditions were to occur, the effects would be in the groundwater capture zone of the open pit, and all impacted water would be treated prior to discharge to the environment.<sup>55</sup>

The FEIS also states that "[t]emporary and limited impacts from increased suspended sediment in marine waters would be expected to occur during construction of the pile structure"56 and;

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<sup>52</sup> ROD 000458.
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<sup>&</sup>lt;sup>53</sup> FEIS\_004334.

<sup>&</sup>lt;sup>54</sup> ROD 000026.

<sup>&</sup>lt;sup>55</sup> FEIS 004754.

<sup>&</sup>lt;sup>56</sup> FEIS 004768.

Direct, temporary impacts to wetlands and other waters are largely related to the storage of fill and the disturbance of lake and seabed during the construction period and are likely to result in changed rates and frequency of erosion, particulate matter suspension, sedimentation, and turbidity. The deposition of suspended particulates on attached or buried eggs can smother the eggs by limiting or sealing off their exposure to oxygenated water. Altered turbidity and suspended particulate load can redirect, delay, or stop the reproductive and feeding movements of some species of fish and crustacea, thus preventing their aggregation in accustomed places. The migration, spawning, or rearing life stages of Pacific salmon and other anadromous or resident fish species would potentially be impacted. Reduction of detrital feeding species or other representatives of lower trophic levels can impair the flow of energy from primary consumers to higher trophic levels thereby decreasing the overall productivity and nutrient export capacity of the ecosystem.<sup>57</sup>

The Appellant also refers to the FEIS, stating that impacts to surface water quality were found to be insignificant with the inclusion of Alaska State permit conditions and mitigation: "direct and indirect impacts of treated contact waters to off-site surface water are not expected to occur."58 The Appellant states the FEIS also found that "dust deposition would not result in exceedances of the most stringent water quality criteria (see Table K3.18-1) when added to baseline conditions or WTP outflow conditions."59

The District evaluates a project based on information available at the time of the decision. It cannot incorporate decisions from other regulatory entities (such as the State of Alaska) that have not been completed. Therefore, it would be inappropriate for the District to rely on conditions from the state permit that was not yet finalized. The AR reflects that there is sufficient evidence to support the District's comments on suspended particulates. This portion of RFA I.B. does not have merit. It is not known whether the consideration of the suspended particulates factor would have the same outcome with the incorporation of an approved CMP that adequately offsets direct and indirect impacts. The CMP is discussed at length in RFA II below.

Bioaccumulation of Toxic Materials. The Appellant states that none of the factors listed in the Factual Determinations Matrix counter the "clear conclusions from the FEIS."60 The Appellant points to the example in the 404(b)(1) Matrix that "methylmercury occurs naturally in the project area, however whether or not sulfates discharged into receiving waters would enhance mercury methylation cannot be ruled out"61 stating that something that cannot be ruled out is not sufficient to support it being

<sup>&</sup>lt;sup>57</sup> FEIS 004845-46.

<sup>&</sup>lt;sup>58</sup> FEIS 004740.

<sup>&</sup>lt;sup>59</sup> FEIS 004747.

<sup>&</sup>lt;sup>60</sup> Request for Appeal 19.

<sup>61</sup> ROD 000329.

significant. The Appellant adds that the FEIS found that "[a]t these low concentrations and anticipated geochemical interactions with various sorptive<sup>62</sup> phases, project-related mercury loading is not expected to contribute significantly to the sulfate-induced net methylmercury production."63 This statement is located in FEIS Appendix K4.24.

The next page of FEIS Appendix K4.24 includes the following paragraph:

Conditions in the project area watershed vary widely, with some areas more conducive to methylmercury production than others. Observations of mercury in baseline fish tissue samples demonstrate that methylmercury is being produced and is available in the project area watershed. In those areas, including sediments and wetlands, that are conducive to the MSR<sup>64</sup> process and are also deficient in sulfate, project-related sulfate loading would stimulate and/or enhance methylmercury production. The degree to which this stimulation or enhancement occurs is likely to be lower than that observed in warmer areas. Nonetheless, overall impacts of project-related sulfate loading on mercury methylation and subsequent methylmercuryrelated concerns cannot be ruled out.65

The last sentence here supports the District's comment relative to methylmercury. There is an additional statement in FEIS Appendix K4.24 supporting the District's conclusion:

Owing to the uncertainties in the qualitative assessments discussed in this section, increased methylmercury production by project-related sulfate loading cannot be ruled out, particularly where conditions conducive to the MSR process and sulfate deficiency overlap. This conclusion is supported by an evaluation of the site-specific conditions and their impacts on two factors influencing mercury methylation: SRB66 activity, and mercury bioavailability.67

The District's statement that effects from methylmercury cannot be ruled out is supported in the AR. This portion of RFA I.B. does not have merit. It is not known whether the consideration of bioaccumulation of toxic materials would have the same outcome with the incorporation of an approved CMP that adequately offsets direct and indirect impacts. The CMP is discussed at length in RFA II below.

<sup>&</sup>lt;sup>62</sup> Sorption is the process in which one substance takes up or holds another (by either absorption or adsorption).

<sup>&</sup>lt;sup>63</sup> FEIS 002187.

<sup>&</sup>lt;sup>64</sup> Microbial Sulfate Reduction.

<sup>&</sup>lt;sup>65</sup> FEIS 002188.

<sup>&</sup>lt;sup>66</sup> Sulfate Reducing Bacteria.

<sup>&</sup>lt;sup>67</sup> FEIS 002184-85.

**Dredging Impacts.** The Appellant also states that the District's finding of significance for dredging impacts at the port site does not support the finding of significant impact for the Koktuli watershed, and states the record does not support finding dredging impacts to be significant:

The only effects would be from initial dredging at construction and periodic (every 5 years) maintenance dredging thereafter. These impacts are no different than those seen at ports throughout Alaska. Any effects on clarity or suspended particulates would be localized and short-lived. The FEIS provides the following:

There would likely be a short-term (i.e., possibly days) increase in suspended sediment load in the dredging operations area during and after dredging activity...

and;

Dredged material would be placed into two bermed stockpiles in uplands north of the port facility (see Figure 2-80). Consolidation and runoff water would be channeled into a sediment pond and suspended sediments would be allowed to settle before discharge to Iliamna Bay. 68

As previously stated, the final decision does not limit the significant degradation finding to the Koktuli Watershed. The Appellant points to the District's acknowledgement in the 404(b)(1) Matrix that impacts from suspended particulates are not expected to be significant: "Suspended sediments and turbidity are expected to be short term in duration and limited in extent. Impact will not have the intensity to lower growth rates or disease tolerance."69

The Appellant states that the ROD decision is arbitrary because it fails to explain why this factor is listed as significant, or how suspended particulates impacts support a significant degradation finding. However, the 404(b)(1) Matrix states that "no additional avoidance/compensatory mitigation [was] identified" and that both secondary and direct impacts will be looked at for compensatory mitigation. It is relevant in the context of 404(b)(1) that the District determined the CMP to be insufficient. It is possible that some or all the factors analyzed for significant degradation could have had a different outcome had the District determined that the CMP was acceptable and adequately offset direct and indirect impacts to below the level of significance. As previously stated, the CMP is discussed at length in RFA II below. This portion of RFA I.B. does not have merit.

<sup>69</sup> ROD 000489.

<sup>&</sup>lt;sup>68</sup> Request for Appeal 19, citing FEIS 004674.

## I.C. The District Overstated the Significance of the Impacts by Unduly Narrowing the Watershed Scale at the Mine Site.

District Use of HUC 12 Watershed Scale. The Appellant states that the significant degradation finding is based on an unsupported finding to restrict the watershed scale to HUC 12 at the mine site, while impacts from other elements of the project were determined based on the HUC 10 watersheds crossed by those components. The Appellant asserts that the District used the narrower HUC 12 to amplify the significance of impacts at the mine site and provides the following example:

When considered at the scale of the North Fork and South Fork Koktuli River and Upper Talarik Creek watersheds, the impact is significant. The proposed project is going to directly convert 21% of the HUC 12 to industrial use.<sup>70</sup>

The Appellant objects to using the smaller HUC 12 scale, stating that by the District's own logic, the impacts would be less if evaluated using a larger HUC. The Appellant also states that the District fails to explain exactly which watersheds it based the significant degradation finding on.

In some places, the ROD refers to the Koktuli River watershed, which extends all the way to the Mulchatna River and includes two HUC 10 watersheds (Headwaters Koktuli and Lower Koktuli).71 In other places, the ROD refers to the North Fork and South Fork Koktuli River watersheds, but these are not officially designated USGS watersheds. In fact, each consists of two HUC 12 watersheds. For example, the North Fork Koktuli watershed is the combined area of the Groundhog Mountain HUC 12 and an unnamed HUC 12 (19030321104).72 In a few places, the ROD also references the Upper Talarik Creek watershed, but that is a separate HUC 10 and the basis for its inclusion is unclear, as there is very little Project footprint in that watershed and compensatory mitigation was not required there. On page B3-10, the ROD references significant degradation of the Bristol Bay Watershed. However, this appears to be an outlier, as the District informed PLP that the significant degradation finding was based on the Koktuli

<sup>&</sup>lt;sup>70</sup> ROD\_000369 (Note: The Request for Appeal incorrectly cites this as ROD\_000269).

<sup>&</sup>lt;sup>71</sup> See, e.g., ROD 000119 "Therefore, the District has determined that in-kind compensatory mitigation within the Koktuli River watershed would be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site."

<sup>&</sup>lt;sup>72</sup> See Exhibit. 2 (Map of HUC 12s around mine site). According to the Appellant, Exhibit 2 shows the mine site's location in relation to the area HUCs from the USGS Watershed Boundary Dataset (https://www.usgs.gov/core-science-systems/ngp/ nationalhydrography/watershed-boundary-dataset). Because the FEIS only assessed impacts at the HUC 10 level, the map in the FEIS includes only HUC 10s.

watershed, and most ROD references related to that finding are regarding the Koktuli.<sup>73</sup>

The Appellant states that "in some places the ROD refers to the Koktuli River watershed", using the example of statements the District makes regarding required compensatory mitigation. Outside of compensatory mitigation references, the only other references in the ROD to the Koktuli River watershed are related to secondary or cumulative impacts. The Appellant then states that the NFK and SFK watersheds are not officially designated USGS watersheds. While this may be a true statement, both the Draft Environmental Impact Statement (DEIS) and the FEIS refer to both watersheds in multiple locations. Further, the Appellant's own application materials also refer to these alternately as "drainages" and as "watersheds." If the Appellant objected to the use of these watersheds as part of the analysis, it had ample opportunity during the process to address that with the District.

The Appellant states that it is unclear why the Upper Talarik Creek (UTC) watershed is included in the analysis because "there is very little project footprint in that watershed and mitigation was not required there." The Appellant states that the FEIS found impacts in the UTC to be insignificant, citing: "The [wetlands] analysis area for the mine site (11,937 acres) is predominantly in the Headwaters Koktuli River watershed, with a smaller portion in the UTC watershed." However, this statement does not reflect "insignificant impacts" as the Appellant asserts. In fact, it is not in a section of the FEIS that discusses impacts, rather it occurs in a discussion of analysis areas for various elements of the project. Further, the lack of the District requiring compensatory mitigation in a specific watershed does not negate the impacts individually or cumulatively within that watershed.

The Appellant points out that ROD page B3-10 states:

However, the proposed project has been determined to cause significant degradation to the ARNI (the Bristol Bay Watershed) as documented in the 404(b)(1) Guidelines analysis. The direct, indirect and cumulative effects of the project would change the unique, generally unadulterated qualities of the Bristol Bay watershed."<sup>78</sup>

The RO agrees with the Appellant that this is likely an outlier, as it is the only place in the ROD that references the Bristol Bay watershed in the context of the significant degradation finding. This appears to be an error that the District can correct as part of its remand reconsideration.

<sup>&</sup>lt;sup>73</sup> Request for Appeal 20-21.

<sup>&</sup>lt;sup>74</sup> See, e.g. 404(b)(1) Matrix, ROD\_000345; ROD\_000046; PIR ROD\_000535.

<sup>&</sup>lt;sup>75</sup> ROD 000078.

<sup>&</sup>lt;sup>76</sup> ROD\_000093.

<sup>&</sup>lt;sup>77</sup> FEIS 003471.

<sup>&</sup>lt;sup>78</sup> ROD 000148.

The District's statement recounted above, "[t]he proposed project is going to directly convert 21% of the HUC 12 to industrial use," is not supported in the record. As the Appellant pointed out during the Appeal Conference, the NFK and SFK watersheds are hybrid watersheds, approximately equivalent to two HUC 12s each. The UTC watershed is a HUC 10. The District does not provide any explanation as to what HUC 12 watershed is going to be converted to 21% industrial use. The Appellant states that the only plausible explanation is that the statement is referring to Groundhog Mountain HUC 12, where direct impacts would be about 19.8% of total wetlands. Further, the Groundhog Mountain watershed is not mentioned anywhere in the ROD.

The regulations at 40 C.F.R. §230 do not dictate that a District's 404(b)(1) analysis be tied to a particular watershed scale in which the potential significant degradation would occur. These are decisions within the discretion afforded to the District, based on the scope and scale of the CWA 404 impacts. However, the District identified the review area for the ROD as inclusive of the NFK, SFK, and UTC watersheds, but then made a quantitative statement about impacts within "the HUC 12" without identifying the HUC 12 or providing any additional explanation. For that reason, *this portion of RFA I.C. has merit.* This RFA is remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision. Specifically, the District should consider the scope of analysis under CWA 404(b)(1) and ensure that the AR accurately documents the analysis and conclusion, specifically as it relates to the quantitative analysis of the severity of impacts.

**Guidance and Precedent for Evaluation.** The Appellant asserts that USACE guidance and District precedent is to evaluate watershed impacts a the HUC 10 level, stating that the FEIS adheres to this approach, analyzing impacts at the headwaters of the Koktuli River and Upper Talarik Creek watershed levels. The Appellant states further that if the District had considered the additional detailed maps submitted with the CMP, the affected percentage in the HUC 10 would have dropped to 4.8% of the wetland area. The Appellant objects to the use of the HUC 12 level in the ROD, particularly in the remote Alaskan context.

The Appellant references the June 15, 2018 Memorandum "Memorandum of Agreement Between the Department of the Army and the Environmental Protection Agency Concerning Mitigation Sequence for Wetlands in Alaska Under Section 404 of the Clean Water Act (Mitigation MOA),"81 which states, in part:

Certain environmental factors in Alaska suggest that larger watershed scales than are commonly used in the lower 48 states may be appropriate. These factors include but are not limited to: (1) large areas where wetlands

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<sup>&</sup>lt;sup>79</sup> Request for Appeal 21,

<sup>&</sup>lt;sup>80</sup> Request for Appeal 22,

<sup>81</sup> https://www.epa.gov/sites/default/files/2018-06/documents/epa\_army\_moa\_alaska\_mitigation\_cwa\_404\_06-15-2018\_0.pdf.

remain relatively free from human alteration and opportunities for wetland restoration and enhancement are limited; and (2) large wetland dominated areas where there is a lack of upland sites appropriate for establishing wetlands. The size of watershed addressed using a watershed approach should not be larger than is appropriate to ensure that the aquatic resources provided through compensation activities will effectively compensate for adverse environmental impacts resulting from activities authorized by Section 404 permits. The Corps considers relevant environmental factors and appropriate locally developed standards and criteria when determining the appropriate watershed scale in guiding compensation activities (see 33 C.F.R. Part 332.3(c)(4) and 40 C.F.R. Part 230.93(c)(4); see also 33 C.F.R. Part 332.3(d) and 40 C.F.R. Part 230.93(d) for compensation site selection considerations).

This section of the Mitigation MOA is specific to considerations regarding compensatory mitigation options and availability, not the analysis of impacts under CWA 404(b)(1). The above paragraph states that the Corps considers relevant environmental factors when determining appropriate watershed scale in guiding compensation activities (emphasis added). Compensatory mitigation is discussed at length in RFA II. This portion of RFA I.C. does not have merit.

District Mitigation Guidance. The Appellant then refers to the "2018 Alaska District Compensatory Mitigation Thought Process" (Thought Process) document, which the District provided to the Appellant via email on August 30, 2019. The Appellant states that this document also directs that HUC 10 or larger may be used for such remote locations:

As a starting point, all project managers should review the 10-digit watershed for the purposes of cumulative impacts and the determination of compensatory mitigation. There are reasons for expanding or reducing the area of analysis from the 10-digit HUC. For example, in populous areas such as the Municipality of Anchorage, it may not be possible to determine project impacts caused by a particular discharge at the 10-digit HUC level due to other activities and/or development within that same subwatershed. In that instance, a project manager should review the 12-digit HUC (this should be an exception, not a standard). In extreme cases, the project manager may determine that it is only possible to identify specific project direct, indirect, and cumulative impacts at the individual reach level due to multiple overlapping impacts within the watershed. In instances where the project is located in a more rural area without interference from other impacts, the project manager may expand the analysis to the 8-digit HUC.82

<sup>82</sup> www.poa.usace.army.mil/Portals/34/docs/regulatory/2018MitigationThought Process.pdf.

The Appellant summarizes, stating that the use of HUC 12 is the exception in Alaska, and is only appropriate for urban, developed areas. The language above provides the example of the Municipality of Anchorage, but does not state that projects in urban areas are the only ones where a smaller watershed scale may be appropriate. This document also emphasizes that decisions on compensatory mitigation belong to the District, and that those decisions should reflect consideration of the replacement of how proposed mitigation will compensate for lost functions and values.83 This portion of RFA I.C. does not have merit. As previously stated, compensatory mitigation is discussed in RFA II.

# I.D. The Significant Degradation Finding was Improperly Used to Drive **Unprecedented Compensatory Mitigation Requirements.**

The Appellant pointed out that the District has indicated that, prior to this project, there has never been a finding of significant degradation in Alaska, even for major projects. The Appellant further pointed out that the District's practice is to consider all mitigation, including compensatory mitigation and state-imposed conditions when evaluating a permit application.

The Appellant stated that the District's process relative to the significant degradation finding in this case is contrary to how the District approached other cases. Specifically, the Appellant claimed that the District's issuance of a preliminary significant degradation finding during the permit process, using that determination as justification for more restrictive mitigation requirements was "completely unprecedented and runs counter to the compensatory mitigation policy established for Alaska." 84

The Appellant then provided a summary of six other Alaska District permits, claiming the District addressed the 404(b)(1) factors and significant degradation determinations without imposing "undue" restrictions on compensatory mitigation.

Corps regulations at 33 C.F.R. §331.7 describe the review procedures associated with the Corps administrative appeal process. Specifically, 33 C.F.R. §331.7(f) states:

The appeal of an approved JD, a permit denial, or a declined permit is limited to the information contained in the administrative record by the date of the NAP85 for the application or approved JD, the proceedings of the

<sup>&</sup>lt;sup>83</sup> Id at 10.

<sup>&</sup>lt;sup>84</sup> Request for Appeal 24.

<sup>85</sup> Notification of Appeal Process (NAP) means a fact sheet that explains the criteria and procedures of the administrative appeal process. Every approved JD, permit denial, and every proffered individual permit returned for reconsideration after review by the district engineer in accordance with §331.6(b) will have an NAP form attached. (33 C.F.R. §331.2).

appeal conference, and any relevant information gathered by the RO as described in §331.5.

Although districts strive for consistency in their decision making, each individual request contains unique facts, circumstances, and site conditions that drive the decision-making process. While there may be similarities between the subject appeal and the projects cited by the Appellant, the facts and circumstances associated with decisions on those projects are not a part of this AR and are thus outside the context of this appeal process. For these reasons, RFA I.D. is not a valid reason for appeal. The Mitigation MOA is discussed above in RFA I.C.

## I.E. The Finding of Significant Degradation is Contrary to USACE Guidance.

The Appellant uses RFA I.E. to reiterate the long-standing guidance in Alaska relative to mitigation flexibility, as described by the Mitigation MOA and the Thought Process documents discussed above. The Appellant specifically cites the Mitigation MOA:

Given the unique climatological and physiographic circumstances found in Alaska, it is appropriate to apply the inherent flexibility provided by the guidelines to proposed projects in Alaska. Applying this flexibility in a reasoned, commonsense approach will lead to effective decision-making and sound environmental protection in Alaska.

The MOA recognizes guiding principles that are specific to Alaska, including:

Compensatory mitigation options over a larger watershed scale may be appropriate given that compensation options are frequently limited at a smaller watershed scale:

and:

Out-of-kind compensatory mitigation may be appropriate when it better serves the aquatic resource needs of the watershed. 86

The Appellant then states that the District refused to consider out-of-kind mitigation and reduced the watershed scale to HUC 12 at the mine site. The Appellant asserts that the District's refusal to apply the flexibility allowed under the Mitigation MOA "sets a dangerous precedent that effectively precludes development, even on state lands that were specifically designated for mineral development."87

The Appellant states that it is being held to a higher standard on significant degradation and compensatory mitigation, creating uncertainty for future mineral development projects.

<sup>87</sup> Request for Appeal 27.

<sup>&</sup>lt;sup>86</sup> Mitigation MOA at 2-3.

The Mitigation MOA and the Thought Process document do not explicitly direct districts to evaluate impacts at a particular watershed scale. As noted above, project managers are advised to begin with a HUC-10 scale, but the document acknowledges there are cases where that would not be appropriate, giving an example of an urban area, but that does not prohibit the District from performing an independent analysis when evaluating potential compensatory mitigation. Further, the Mitigation MOA clearly states, as noted above that out-of-kind mitigation *may be* appropriate *when it better serves the needs of the watershed.* This statement is not a directive to allow out-of-kind mitigation in every case, it is simply an acknowledgement that there are cases where it may be more appropriate. *RFA I.E. does not have merit.* 

# II. The District's Rejection of the CMP is Contrary to USACE Regulations and Guidance.

- **1. FINDING:** RFAs II.A., II.B.1., II.B.2., II.B.3., and II.B.5. have merit. RFAs II.B.4., II.B.6., and II.C. do not have merit.
- **2. ACTION:** RFAs II.A., II.B.1, II.B.2., II.B.3., and II.B.5. are remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision. Specifically, the District should provide complete and detailed comments to the Appellant on the compensatory mitigation plan allowing the Appellant sufficient time to address those comments prior to finalizing a revised mitigation plan review. The District should also note that if a Compensatory Mitigation Plan is determined acceptable and adequately offsets direct and indirect impacts, a new PIR and 404(b)(1) analysis may be required.

#### 3. DISCUSSION:

# II.A. The CMP (Compensatory Mitigation Plan) was Improperly Rejected Without Providing PLP an Opportunity to Correct the Alleged Deficiencies.

The first time the District requested a Compensatory Mitigation Plan from the Appellant was July 19, 2018, for purposes of inclusion in the DEIS.<sup>88</sup> The timeline described by the Appellant in the Request for Appeal relative to compensatory mitigation begins on August 15, 2018 when the Appellant submitted some questions to the District seeking guidance on preparing the mitigation plan.<sup>89</sup> In this letter, the Appellant requested a meeting with the District and asked several questions related to mitigation planning. The Appellant states it met with the District on August 30, 2018 to discuss the CMP. The AR does not contain any District notes or summary of this meeting or mitigation items discussed, although there is correspondence demonstrating that a meeting did occur on that date.<sup>90</sup> There are also handwritten notes in the AR with answers to the Appellant's

<sup>89</sup> AR 0003250 000063-65.

<sup>&</sup>lt;sup>88</sup> AR 0002750 000403.

<sup>&</sup>lt;sup>90</sup> AR 0003500 000581.

questions written by the former District Deputy Regulatory Chief, but during the Conference, she stated that those notes were part of an internal staff discussion, so it is not clear how much, if any of the information noted was conveyed to the Appellant.<sup>91</sup>

The Appellant states that the first CMP (CMP1) was submitted November 21, 2018, and references AR 0005750\_000210 as the submittal of CMP1. This citation is incorrect, and it appears there is no original submittal of CMP1 in the AR. However, the District provided comments directly on the pdf submittal of CMP1 via email to the Appellant dated December 17, 2018. The District stated that with some additional information as outlined, CMP1 would satisfy the requirements of a compensatory mitigation statement needed for a complete application. The Appellant revised the CMP (CMP2) and resubmitted it in January 2019. This is the version that was included as Appendix M of the February 2019 DEIS.

A third version of the draft CMP (CMP3) was submitted on July 26, 2019 by the Appellant in response to a March 1, 2019 request from the District for a "final compensatory mitigation plan" 95 The District provided comments on this version to the Appellant on September 3, 2019.96 A portion of CMP3 mentions fish habitat restoration through culvert rehabilitation and other fish passage improvements (i.e. offsite/out-ofkind).<sup>97</sup> The District commented that "credits can only be given if the culvert upgrades are not a result of non-compliance of an authorization" and "if the culvert was authorized, it is the responsibly of the permittee to comply with the maintenance of the feature."98 The Appellant concluded that determining the history of these aged culverts would be nearly impossible. Based on the District's feedback, the Appellant submitted additional information and another CMP (CMP4) on January 13, 2020. This version included water treatment facility improvements in three communities close to the mine, marine debris removal, and culvert repairs.99 A further updated version (CMP5) was provided to the District on January 27, 2020. 100 The Appellant states that CMP5's offsite and out-of-kind mitigation proposal was consistent with other major development projects in Alaska. 101

<sup>99</sup> AR 0012500 000058-107.

<sup>91</sup> AR\_0018250\_001096-97.

<sup>&</sup>lt;sup>92</sup> AR\_0005750\_000290-332.

<sup>&</sup>lt;sup>93</sup> AR 0006750 000411-452.

<sup>&</sup>lt;sup>94</sup> DEIS 000810-851.

<sup>95</sup> RFI 56a; 0009500\_000317-390.

<sup>&</sup>lt;sup>96</sup> AR 0001000 0003692-763.

<sup>&</sup>lt;sup>97</sup> AR 0001000 0003724.

<sup>&</sup>lt;sup>98</sup> Ibid.

<sup>&</sup>lt;sup>100</sup> AR 0012500 000377-635.

<sup>&</sup>lt;sup>101</sup> As previously discussed in RFA I.D., while there may be similarities between the subject appeal and the projects cited by the Appellant, the facts and circumstances associated with decisions on those projects are not a part of this AR and are thus outside the context of this appeal process.

The Appellant states it was notified by the District in meetings, on June 25 and 30, 2020, that a determination had been made that the project would result in significant degradation in the Koktuli watershed. 102 There are no District notes or correspondence in the AR regarding these two meetings. During the Conference, the District was asked about these meetings, and responded that it "did not recall specific meetings and could not confirm specifics of the discussions, but it was probable that significant degradation was discussed with the Appellant." 103 According to the Appellant's recounting of the meeting(s), the District indicated that the significant degradation finding required new compensatory mitigation requirements, and:

The District went on to state that it had identified the required mitigation needed to avoid significant degradation, that wetlands creation, restoration, and enhancement were not practicable, and that preservation at a "large ratio" in the Koktuli drainage was the path forward. The District directed PLP to look at mitigation banks and in-lieu fee programs (ILFs) for transportation infrastructure and port impacts. In addition, the District stated that the CMP should include: some form of development restriction to protect the surface from industrial/commercial development, which could be conditioned around successful receipt of State permits; and equivalent data to support a finding that the preservation adequately compensates for the unavoidable project impacts to waters of the U.S.<sup>104</sup>

On August 20, 2020, the District sent the Appellant a letter (August 20 letter), indicating that in-kind and in-watershed compensatory mitigation would be required to compensate for direct and indirect impacts at the mine site, and that compensatory mitigation would also be required for impacts associated with the transportation corridor and the port site. The District used this letter to also inform the Appellant that the compensatory mitigation plan must meet the requirements identified at 33 C.F.R. Part 332 and 40 C.F.R. Part 230 Compensatory Mitigation for Losses of Aquatic Resources: Final Rule (Mitigation Rule). The August 20 letter states that the "mitigation plan may include a combination of means and mechanisms but must comply with all required components of Rule and be found sufficient to offset the unavoidable adverse impacts to the aquatic resources."105

Although the AR reflects multiple CMP submissions and feedback from the District, there are no notes or memoranda in the AR reflecting either the June 25 or June 30 meetings. The only evidence of what transpired during those meetings is the information provided by the Appellant, who perceived guidance from the District that was a complete reversal of the previous compensatory mitigation planning to date. The August 20 letter does reflect some of what the Appellant asserts was discussed in the June meetings, specifically that in-kind mitigation would be required for mine site impacts.

<sup>&</sup>lt;sup>102</sup> Fueg Decl. 9.

<sup>&</sup>lt;sup>103</sup> MFR 3.

<sup>&</sup>lt;sup>104</sup> Request for Appeal 9, citing Fueg decl. 9.

<sup>&</sup>lt;sup>105</sup> AR 0017250-000262.

The Appellant indicates it relied on guidance from the District and stated the District told the Appellant numerous times that a decision about required mitigation could not be made until impacts were fully known in the EIS process. The Appellant states that after being notified by the District of the significant degradation finding, it expended significant effort to identify in-kind/in-watershed mitigation opportunities as per the

District's guidance. <sup>106</sup> The Appellant also recounted a September 8, 2020 meeting, in which, the District told the Appellant that the mitigation for the port and transportation route could be rolled into the Koktuli Conservation Area plan. The Appellant states that in response to this, it removed the previously proposed port-specific mitigation in the form of credits from the plan. The Appellant also states it asked for a specific mitigation ratio, and the District stated it would be "at least 6.5:1" but did not provide any rationale for that number. <sup>107</sup>

The purpose of the Mitigation Rule is to improve the quality and success of compensatory mitigation projects for activities authorized by Department of the Army permits. 33 C.F.R. §332.3(a)(1) states (in part):

For individual permits, the permittee must prepare a draft mitigation plan and submit it to the district engineer for review. After addressing any comments provided by the district engineer, the permittee must prepare a final mitigation plan, which must be approved by the district engineer prior to issuing the individual permit.

The Appellant submitted the draft final CMP (CMP6) on September 29, 2020 and stated that the District performed what the Appellant characterized as a "fatal flaw" review of CMP6 via telephone call on October 13, 2020. The Appellant asserts that this review did not cover the CMP issues identified in the ROD as deficient, including the port site mitigation. According to the Appellant, the only "fatal flaw" identified during this call was that the proposed approach to secure surface tenure through a lease with the State of Alaska was not sufficient for site protection. During the Conference, the District Deputy Regulatory Chief also stated she did not think the District raised concerns with Appellant's overall (mitigation) proposal before the ROD was issued. The District correctly pointed out during the Conference that it is not appropriate to say yes or no to any mitigation proposal prior to a final submission. However, allowing an applicant the opportunity to address deficiencies in a draft mitigation plan does not represent an approval or disapproval of that plan.

At the Conference, the District indicated that another staff member, whom was not in attendance, conducted the review of the CMP6 and the subsequent October 13

<sup>107</sup> Fueg decl. 13.

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<sup>&</sup>lt;sup>106</sup> Fueg decl. 10.

<sup>&</sup>lt;sup>108</sup> Fueg decl. 14.

<sup>&</sup>lt;sup>109</sup> Request for Appeal 10.

discussion, and that there were no notes available from that review. The Appellant stated that the District representative indicated more information was needed on the financial aspects, maintenance, monitoring, and the lease mechanism. The Appellant understood from the October 13 discussion that it was not all-inclusive, but that the conversation was focused on the higher-level issues. The Appellant asserted that many of the District identified deficiencies in the ROD could have been easily addressed, given the opportunity, and that some of the deficiencies were in error. As a follow-up to the Conference, the RO requested the District to provide AR citations to notes or summaries from the October 13 discussion. The District indicated they were not able to locate any of the requested information.<sup>110</sup>

There are no District notes or memoranda in the AR documenting the conversations that took place after the August 20, 2020 letter from the District advising the Appellant of the new requirement for in-kind and in-watershed mitigation and prior to the ROD. There is also no District record in the AR of any mitigation-related conversation, such as the "fatal flaw" review described by the Appellant.

Because this information is absent from the AR, there is no way to determine if the verbal feedback on CMP6 was sufficient to allow the Appellant adequate opportunity to address "any comments provided by the district engineer" prior to submittal of the final CMP (CMP7). The CMP7 was submitted on November 4, 2020, as required by 33 C.F.R. §332.3(a)(1). For these reasons, *RFA II.A has merit.* This RFA is remanded to the District for further evaluation and documentation. The District should provide complete and detailed comments to the Appellant on the compensatory mitigation plan, allowing the Appellant to address those comments prior to finalizing the mitigation plan review. The District should also be mindful in the future about including in the administrative record memoranda or notes documenting conversations with applicants, particularly when the District is providing, or may be perceived as providing specific direction to an applicant.

### II.B. The Alleged CMP "Deficiencies" are Baseless

#### **II.B.1. Port Site Mitigation**

The Appellant objects to the District statement that "no compensatory mitigation was proposed by the applicant to offset impacts from the port site." The Appellant describes how page one of CMP7 includes the port site in the overall term "transportation infrastructure". The Appellant then states that immediately afterwards, CMP7 refers to "the mine site and transportation corridor," and asserts that "[t]he CMP therefore included the port site as part of the transportation corridor and impacts from the port site are included within the transportation facility impact numbers." The

<sup>&</sup>lt;sup>110</sup> McCoy email 11/14/22.

<sup>&</sup>lt;sup>111</sup> ROD 000308.

<sup>112</sup> Request for Appeal 28, referring to ROD 000187-88.

Appellant also states that Section 6 of CMP7 describes how all project impacts, including transportation facility impacts would be mitigated through preservation. 113

The Appellant states that it was advised by the District in a September 8, 2020 meeting that mitigation for the port and transportation route could be rolled into the Koktuli Conservation area plan, and subsequently removed port-specific mitigation credits from CMP6 and CMP7. The Appellant further states that the District did not raise concerns about port site mitigation during its "fatal flaw" review.

Both CMP6 and CMP7 use inconsistent language when referring to the impacts for "transportation". As described by the Appellant, the term "transportation infrastructure" is used on page one, then "transportation corridor" on page two. The impact tables categorize simply "transportation" under the column heading of "facility" in the impact table. 114 The totals closely match the totals for the mine site, port, and transportation corridor as described in the District's August 20, 2020 letter. Although the Appellant could have been clearer with more consistent language, the impact table totals clearly include acreages for all elements of the proposed project, including the port site. The District could have easily requested clarification from the Appellant on this point during the purported "fatal flaw" review.

As mentioned above in RFA II.A, because of the lack of notes or memoranda regarding mitigation conversations that happened after the District's August 20, 2020 letter, there is no evidence in the AR about what the Appellant was or was not told by the District with regard to CMP6 and CMP7. Additionally, although the language used in CMP6 and CMP7 are inconsistent, the fact that the Appellant used the impact totals for the entire project in multiple locations in CMP6 and CMP7 should have prompted a request for clarification from the District. For these reasons, RFA II.B.1. has merit. This RFA is remanded to the District for further evaluation and documentation. The District should provide complete and detailed comments to the Appellant on the compensatory mitigation plan, allowing the Appellant to address those comments prior to finalizing the mitigation plan review. The District should also be mindful in the future about including in the administrative record memoranda or notes documenting conversations with applicants, particularly when the District is providing, or may be perceived as providing specific direction to an applicant.

#### **II.B.2. Preservation Waiver**

The Appellant states that a preservation-only CMP was "required based on the District's direction in its August 20, 2020 letter, which stated that 'in-kind compensatory mitigation within the Koktuli River Watershed will be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site."115 The

<sup>&</sup>lt;sup>113</sup> Request for Appeal 28, referring to ROD\_000207.

<sup>&</sup>lt;sup>114</sup> Draft CMP (CMP6) located at AR 0017750 000630-83, Final (CMP7) submittal at AR 0017750 000720-848 and included in the ROD as Attachment B5.

<sup>&</sup>lt;sup>115</sup> Request for Appeal 29 referring to AR 0017250 000262.

Appellant asserts that since the District knew then that opportunities for restoration, creation, or enhancement within the Koktuli Watershed would not be reasonable due to existing conditions within the watershed, the August 20 letter reflected the District's position that preservation-only was the appropriate mitigation. The Appellant further states that the District did not explain why the Appellant would need to request a waiver after it was understood that preservation was the only option. The Appellant indicates that the District did not mention anything about a waiver in the "fatal flaw" review of CMP6, and correctly points out that the regulation does not describe a process by which an applicant can "request" a waiver for a preservation-only CMP. 116

In its review of CMP7 as part of the ROD, the District states the following regarding a waiver:

Preservation Waiver-Not Compliant: Preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. This requirement may be waived by the district engineer where preservation has been identified as a high priority using a watershed approach. No restoration, establishment, and/or enhancement were proposed and justification identifying the proposed preservation as a high priority using a watershed approach was not submitted. [33 C.F.R. 332.3(h)(2)]<sup>117</sup>

The District cites 33 C.F.R. §332.3(h)(2), but it is an incomplete citation. The first sentence of the referenced section states "Where preservation is used to provide compensatory mitigation, to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities." (emphasis added). Further, 33 C.F.R. §332.3(h)(1) provides a list of criteria for when preservation may be used:

- (1) Preservation may be used to provide compensatory mitigation for activities authorized by DA permits when all the following criteria are met:
  - (i) The resources to be preserved provide important physical, chemical, or biological functions for the watershed:
  - (ii) The resources to be preserved contribute significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the district engineer must use appropriate quantitative assessment tools, where available:
  - (iii) Preservation is determined by the district engineer to be appropriate and practicable;

<sup>&</sup>lt;sup>116</sup> 33 CFR 332.3(h)(2).

<sup>&</sup>lt;sup>117</sup> ROD 000308.

- (iv) The resources are under threat of destruction or adverse modifications; and
- (v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

The District states that justification identifying the proposed preservation as a high priority using a watershed approach was not submitted. While the Appellant did not provide a specific statement such as "this is why preservation is a high priority in this watershed", it did provide a discussion relative to each of the requirements listed at §332.3(h) in section 2 of both CMP6<sup>118</sup> and CMP7<sup>119</sup>. Given the specific instruction from the District to seek mitigation within the watershed, and the acknowledgement by all parties that they understood restoration, establishment, and/or enhancement activities were limited in the Koktuli Watershed, it was reasonable for the Appellant to proceed with submittal of a preservation-only CMP. The District stated in its August 20, 2020 letter that the CMP must comply with all components of the Mitigation Rule, but according to the Appellant, the District performed its "fatal flaw" review and did not identify the need for a waiver or specific information requirements regarding the Appellant's need to provide additional information or clarification justifying a preservation-only CMP. There are no notes or memoranda in the AR that reflect the "fatal flaw" review of the CMP6 or CMP7. For these reasons. RFA II.B.2. has merit. This RFA is remanded to the District for further evaluation and documentation. The District should provide complete and detailed comments to the Appellant on the compensatory mitigation plan, allowing the Appellant to address those comments prior to finalizing the mitigation plan review. The District should also be mindful in the future about including in the administrative record memoranda or notes documenting conversations with applicants, particularly when the District is providing, or may be perceived as providing specific direction to an applicant.

#### II.B.3. Level of Detail and "Missing" Documentation

The Appellant objects to the vague assertion by the District that the level of detail in CMP7 is not commensurate with the scale and the scope of impacts. The Appellant states that the detail required for a preservation-only CMP is significantly less than what would be required for restoration or enhancement, and that it provided in CMP7 all the elements required under 33 C.F.R. §332. Further, the Appellant states it proposed to develop additional information such as a boundary and baseline survey prior to construction, which would be several years in the future due to the need to complete state permitting requirements. Baseline conditions may change in the intervening years,

<sup>&</sup>lt;sup>118</sup> AR 0017750 000640-641.

<sup>&</sup>lt;sup>119</sup> ROD\_000189-91.

therefore the Appellant asserts it is more appropriate to accomplish this task closer to construction. 120

The document titled "Compliance Review of Final Report, Pebble Project Compensatory Mitigation Plan in accordance with 33 C.F.R. 332, POA-2017-00271"121 (Compliance Review) dated November 9, 2020 provides limited discussion of the factors the District found to be non-compliant with the Mitigation Rule. This document points to another document with the same date: "More detailed findings are contained in the Final Plan Review and Determination of Compliance dated 09Nov20"122 (Final Plan Review). The RO requested the District provide the AR citation to the Final Plan Review document, and it was unable to provide it. The RO then requested an AR citation from the Appellant, and the Appellant stated that it was not in the AR but was able to provide the document itself and an email transmittal showing it was sent to the Appellant on the same day as the ROD was finalized. The Appellant then requested this document be added to the AR, and the District added it to the AR at AR\_0017750\_00850A to 00978A.

The Final Plan Review does provide more detail of the District's CMP7 review than what is provided in the Compliance Review. However, as stated above, there is no evidence that the District provided these comments on CMP7 prior to citing them in the ROD as reasons for the CMP being non-compliant with the Mitigation Rule.

The Appellant objects to the District statements in the Final Plan Review that CMP7 is insufficient because of the failure to submit certain land use plans. The Appellant states the District is aware that the proposed Koktuli Conservation Area is managed by the Alaska Division of Mining, Land, and Water. The Appellant further states that the District is familiar with the BBAP, which directs management of State land in the Bristol Bay region, as it is even mentioned in the ROD.<sup>123</sup> Additionally, the Appellant states that the District's comment: "I did look it up and it is not compliant with the watershed approach and therefore cannot be relied upon as the sole document"<sup>124</sup> regarding the Nushagak River Watershed Traditional Use Area Conservation Plan (NRWTUA) is inaccurate and states that this detail was also not mentioned in the 'fatal flaw' review of CMP6.

Land-use plans can change over time, and an approved CMP would be tied to how a land-use plan was structured at a specific point in time. Therefore, it is not unreasonable for the District to require that these plans be included with a CMP submittal. As previously mentioned, there is no documentation in the AR that the District provided the Appellant an opportunity to correct this deficiency. For these reasons, *RFA II.B.3. has merit.* This RFA is remanded to the District for further evaluation and documentation. The District should provide complete and detailed comments to the Appellant on the

<sup>&</sup>lt;sup>120</sup> Request for Appeal 31.

<sup>&</sup>lt;sup>121</sup> ROD 000308.

<sup>&</sup>lt;sup>122</sup> ROD 000308.

<sup>&</sup>lt;sup>123</sup> Request for Appeal 31.

<sup>&</sup>lt;sup>124</sup> AR 0017750 000862A

compensatory mitigation plan, allowing the Appellant to address those comments prior to finalizing the mitigation plan review. The District should also be mindful in the future about including in the administrative record memoranda or notes documenting conversations with applicants, particularly when the District is providing, or may be perceived as providing specific direction to an applicant.

#### **II.B.4. Performance Standards**

The Appellant states that the District "faults the CMP for failure to include ecological performance standards, such as a functional assessment."125 The Appellant refers to the Compliance Review document when making this statement. However, the Compliance Review document does not mention functional assessments at all. The statement regarding performance standards is:

Performance Standards-Not Compliant: No ecological performance standards were submitted. Submitted performance standards are administrative in nature, such as the act of monitoring, the act of enforcement, and the act of documentation of the deed restriction requirements. [33 C.F.R. 332.4(c)(9) and 33 C.F.R. 332.5]<sup>126</sup>

The Regulations the District cites are as follows:

§332.4(c)(9) Performance standards. Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives. (See § 332.5.)

§332.5 Ecological performance standards.

- (a) The approved mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives. Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected functions, and attaining any other applicable metrics (e.g., acres).
- (b) Performance standards must be based on attributes that are objective and verifiable. Ecological performance standards must be based on the best available science that can be measured or assessed in a practicable manner. Performance standards may be based on variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic resources of similar type and landscape position. The use of reference aquatic resources to establish

<sup>&</sup>lt;sup>125</sup> ROD 000308.

<sup>&</sup>lt;sup>126</sup> ROD 000308.

performance standards will help ensure that those performance standards are reasonably achievable, by reflecting the range of variability exhibited by the regional class of aquatic resources as a result of natural processes and anthropogenic disturbances. Performance standards measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performance standards should take into account the expected stages of the aquatic resource development process, in order to allow early identification of potential problems and appropriate adaptive management. (emphasis added)

Although paragraph 332.5(b) mentions functional assessments, it is only part of a list of potential measures, as per the italicized text. There is no evidence to suggest, or reason to believe the District made a statement or implied that a functional assessment was required to render the CMP sufficient. For these reasons, RFA II.B.4. does not have *merit.* As part of the process associated with the remand of other mitigation-related RFAs, the Appellant will have the opportunity to seek clarification of performance standard-related information.

## **II.B.5. Monitoring**

The Appellant states that the District found the plan to monitor every five years inadequate. The Appellant states that the plan is based on the expected lack of change in the proposed mitigation area, as well as safety considerations and noise minimization. Lastly, the Appellant states that if the District had provided feedback on this issue, the schedule could have been modified.

Regulations at 33 C.F.R. §332.6 state:

Monitoring period. The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs). Following project implementation, the district engineer may reduce or waive the remaining monitoring requirements upon a determination that the compensatory mitigation project has achieved its performance standards. Conversely the

district engineer may extend the original monitoring period upon a determination that performance standards have not been met or the compensatory mitigation project is not on track to meet them. The district engineer may also revise monitoring requirements when remediation and/or adaptive management is required.

There is no evidence in the record that the District discussed the frequency of expected monitoring events for a preservation-only CMP. The regulation does not specify a frequency, other than no less frequent than 5 years. In the absence of the District setting the expectation, it was reasonable for the Appellant to propose a 5-year frequency. As with discussions above on previous RFAs, there is no documentation in the AR that the District provided the Appellant an opportunity to correct this deficiency.

For these reasons, *RFA II.B.5. has merit.* This RFA is remanded to the District for further evaluation and documentation. The District should provide complete and detailed comments to the Appellant on the compensatory mitigation plan, allowing the Appellant to address those comments prior to finalizing the mitigation plan review. The District should also be mindful in the future about including in the administrative record memoranda or notes documenting conversations with applicants, particularly when the District is providing, or may be perceived as providing specific direction to an applicant.

#### **II.B.6. Site Protection Instrument**

The Appellant states that "In a cryptic comment, the District suggests that "permanent protection" with rights held by third parties through a conservation easement must be pursued if practicable."127 It is not clear whether the Appellant meant to refer to the District comments located in the Compliance Review document or the Final Plan Review document. The District comments in the Final Plan Review on Site Protection are lengthy, but do not state that a conservation easement is the only option for site protection. The District's comments on the Final Plan Review that refer to a third party are consistent with the Mitigation Rule<sup>128</sup>, as discussed below. The Compliance Review states the following with regard to site protection:

Site Protection-Not Compliant: Deed restrictions proposed for 99 years. The goal of 33 C.F.R. 332 is to ensure permanent protection of all compensatory mitigation project sites. Justification not provided as to why a perpetual conservation easement with third party holder is not practicable. A site protection instrument was not provided; therefore, could not be evaluated. The Final Plan did provide partial deed restriction language; however, the site protection information was not complete, e.g. the Final Plan did not provide the required 60-day advance notification language. No supporting

real estate information was submitted; therefore, could not review title insurance, reserved rights, rights-of-way, etc. Baseline information was also not submitted; therefore, could not determine existing disturbances such as roads, culverts, trails, fill pads, etc. USACE cannot enforce the deed restrictions since third-party enforcement rights were not given to USACE. [33 C.F.R. 332.7(a)]<sup>129</sup>

<sup>129</sup> ROD 000308

<sup>&</sup>lt;sup>127</sup> Request for Appeal 33.

<sup>&</sup>lt;sup>128</sup> 33 CFR 332.7(a)(1).

This statement does suggest that justification should be provided for why a conservation easement with a third-party holder is not practicable. It also states several other reasons why the site protection portion of CMP7 is insufficient.

The Appellant's approach to site protection in CMP7 was different than what was proposed in the CMP6. As described by the Appellant, the District advised that the original plan to secure surface tenure through a lease with the State of Alaska was not sufficient for site protection. CMP7 offers a deed restriction to be recorded with covenants to limit uses in accordance with the CMP. This deed restriction would be recorded prior to construction of the project and would remain in effect for at least 99 years. 131

The Appellant states that the approach it took to site protection is consistent with regulations and the USACE Site Protection Instrument Handbook. The Handbook lists deed restriction (restrictive covenants) as one of several real estate instruments most commonly used to protect compensatory mitigation sites. The Appellant also states that deed restrictions are listed in the Thought Process document as appropriate preservation instruments. The Appellant also states appropriate preservation instruments.

There is no evidence in the AR that a policy requiring conservation easements and excluding other methods of site protection exists in the District. The Mitigation Rule does not dictate this either, rather, it recognizes that due to variation in state and local laws, "The terms for conservation easements, restrictive covenants, and other mechanisms are more appropriately addressed by district engineers on a case-by-case basis." 134

<sup>&</sup>lt;sup>130</sup> Request for Appeal 10.

<sup>&</sup>lt;sup>131</sup> ROD\_000195.

<sup>&</sup>lt;sup>132</sup> U.S. Army Corps of Engineers, *Compensatory Mitigation Site Protection Instrument Handbook for the Corps Regulatory* Program p.6-7 (July 2016), https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/Site\_Protection\_Instrument\_Handbook\_August\_2016.pdf?ver=2016-08-29-082816-237.

<sup>&</sup>lt;sup>133</sup> Alaska District Compensatory Mitigation Thought Process p.16 (Sept 2018) https://www.poa.usace.army.mil/Portals/34/docs/regulatory/2018MitigationThought Process.pdf .

<sup>&</sup>lt;sup>134</sup> Compensatory Mitigation for Losses of Aquatic Resources; Final Rule; 73 Federal Register 19646, April 10, 2008.

In addition, the Mitigation Rule states:

To provide sufficient site protection, a conservation easement or restrictive covenant should, where practicable, establish in an appropriate third party (e.g., governmental or non-profit resource management agency) the right to enforce site protections and provide the third party the resources necessary to monitor and enforce these site protections. 135

Because this portion of the regulation uses "where practicable", the District must make a determination regarding practicability, thus, it is appropriate that a CMP should include a statement regarding the practicability of using a third-party holder of the site protection instrument with enforcement rights.

The Appellant objects to the District's suggestion that 99 years does not meet the terms of the Mitigation Rule because it is not permanent. The Appellant believes that the regulation only requires long-term protections, rather than permanent protections. While the Appellant is correct that 33 C.F.R. §332.7 references long-term protection, 33 C.F.R. §332.3(h)(1) lists the five criteria that must be met in order to use preservation as compensatory mitigation. One of those criteria is that "The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust)" (emphasis added). Further, the District's statement that the goal of the Mitigation Rule is to ensure permanent protection of all compensatory mitigation sites is directly from the preamble to the Mitigation Rule. 136

The Appellant accurately points out that 33 C.F.R. §332.7(a)(1) offers alternatives for long-term protection on government owned land. The portion of the regulation the Appellant is referring to states: "For government property, long-term protection may be provided through federal facility management plans or integrated natural resources management plans." This, however, does not supersede the requirement at §332.3(h)(1), for permanent protection of preservation lands.

For these reasons, *RFA II.B.6. does not have merit.* As part of the process associated with the remand of other mitigation related RFAs, the Appellant will have the opportunity to seek clarification regarding site protection instrument expectations.

### II.C. Many Alleged Gaps are Implementation and Documentation Steps Generally **Submitted Post-Permit**

In RFA II.C., the Appellant asserts that it is arbitrary for the District to seek details on the site protection instrument, as they are not required prior to the decision. The Appellant

<sup>&</sup>lt;sup>135</sup> 33 CFR 332.7(a)(1).

<sup>&</sup>lt;sup>136</sup> Compensatory Mitigation for Losses of Aquatic Resources; Final Rule; 73 Federal Register 19646, April 10, 2008.

asserts that the District knew there were decisions necessary by the State of Alaska, and that the Appellant was pursuing those.

The Appellant asserts that many of the gaps identified by the District are documentation steps generally developed post-permit. The Appellant uses the example of site protection, stating that the District faults CMP7 for failure to provide a site protection instrument and supporting real estate information. The Appellant states that a proper description of all these elements is included in CMP7 in Section 4, stating that some components will be submitted for approval closer to construction. 137

According to the Appellant, the regulations require that a CMP include a "description" of the site protection instrument, maintenance plan, long-term management plan, and financial assurances, but do not require these elements to be approved in advance of a permit decision. 138

The Mitigation Rule at §332.7(a)(5) states: "A real estate instrument, management plan, or other long-term protection mechanism used for site protection of permitteeresponsible mitigation must be approved by the district engineer in advance of, or concurrent with, the activity causing the authorized impacts." The Appellant asserts this was its approach, and that the District was incorrect in citing site protection as one of the reasons CMP7 was insufficient.

The Appellant cites the Donlin Gold ROD as a reference. The Appellant states that the District acted contrary to practice because in the Donlin ROD the District approved a CMP that allowed for a site protection instrument and other information to be developed and submitted post-permit. The District provided a copy of the Donlin CMP to the Appellant in September 2018, presumably as an example of what a successful CMP would look like. 139 However, comparing the Donlin CMP to the Appellant's CMP would not be appropriate. As previously stated, each individual request contains unique facts, circumstances, and site conditions that drive the decision-making process. While there may be similarities between the subject appeal and the Donlin project, the facts and circumstances associated with the permit decision, including decisions relative to compensatory mitigation are not part of this AR and are thus outside the context of this appeal process.

Although the regulation at §332.7(a)(5) does not require approval prior to authorization, because it says "in advance of, or concurrent with," the District has some discretion regarding what elements to require prior to finalizing its decision. For these reasons, RFA II.C. does not have merit. However, as part of the District's reconsideration of the mitigation plan as described above, the Appellant will have the opportunity to seek clarification of District expectations regarding site protection instrument(s).

<sup>139</sup> AR 0011250\_000518-786.

<sup>&</sup>lt;sup>137</sup> Request for Appeal 35, citing ROD\_000195.

<sup>&</sup>lt;sup>138</sup> Request for Appeal 35.

## III. The Public Interest Decision is Contrary to Law and Unsupported by the Record.

- **1. FINDING:** A portion of RFA III.A.3., RFA III.A.1., III.B.1. and III.B.3. have merit. The introductory portion of RFA III, the introductory portion of RFA III.B., two portions of RFA III.A.3., RFA III.A.2, and III.B.2. do not have merit.
- **2. ACTION:** A portion of RFA III.A.3., RFA III.A.1., III.B.1. and III.B.3.are remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision. Specifically, the District should reconsider its evaluation of the public interest factors as described in each of these RFAs.

#### 3. DISCUSSION:

Regulations at 33 C.F.R. §320.4(a)(1) describe the public interest review (PIR):

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources.

This regulation does not provide explicit direction how Districts should identify or weigh the individual factors. In this case, the District evaluated a total of 22 factors in its PIR.<sup>140</sup> The District stated that after identifying the factors to be evaluated, it considered:

...comments received, the analysis in the FEIS, and the specific benefits and adverse impacts, as well as the applicant's proposed avoidance, minimization, and mitigation while making determinations of the overall impact of the project on each factor. Effects of the project on a particular factor were determined to be adverse (detrimental), negligible (adverse), negligible (beneficial), beneficial, or to have no effect. Some factors received no determination of effects as they referred to procedural processes rather than potential effects of the project on the public's interest."

<sup>141</sup> ROD 000139-40.

<sup>&</sup>lt;sup>140</sup> ROD 00514-553.

In RFA III, the Appellant cites portions of the Corps implementing regulations, stating that:

The 404 regulations provide that the public interest review (PIR) should be a "general balancing process" based on "probable impacts" that results in a decision that "reflect[s] the national concern for both protection and utilization of important resources." One specific factor does not by itself force a decision, but rather the decision entails a "careful weighing of all those factors which become relevant in each particular case."142

As described at 33 C.F.R. §320.4(a)(3):

The specific weight of each factor is determined by its importance and relevance to the particular proposal. Accordingly, how important a factor is and how much consideration it deserves will vary with each proposal. A specific factor may be given great weight on one proposal, while it may not be present or as important on another. However, full consideration and appropriate weight will be given to all comments, including those of federal, state, and local agencies, and other experts on matters within their expertise.

In this case, the District found that the benefits of the proposed elimination and alteration of wetlands, streams, and other waters did not outweigh the detriments. The District found adverse impacts to the majority of the public interest factors, but specifically pointed to wetlands, fish and wildlife values, soils, and water quality as the PIR factors that led to the conclusion. 143

The Appellant summarizes that:

The PIR decision must be based on record facts, not conjecture, and must give appropriate weight to all relevant factors, both ecological and economic. The public interest review is based on the administrative record compiled in the course of the permitting process, particularly the EIS.<sup>144</sup>

**Soils.** The Appellant then states that the District relied on speculative and unsupported harms to outweigh benefits of the project. The Appellant uses a footnote to point to the example of soils, stating that the finding is unclear due to there only being four sentences in the discussion of this factor. The Appellant objects to the District's statement in the ROD<sup>145</sup> that the project would have adverse effects on soils at the local

<sup>144</sup> Request for Appeal 36.

<sup>&</sup>lt;sup>142</sup> Request for Appeal 35-36.

<sup>&</sup>lt;sup>143</sup> ROD 000165.

<sup>&</sup>lt;sup>145</sup> ROD 000165.

level, without explaining the context or scale of those local impacts. 146 The Appellant points to the FEIS, stating that it concludes "No adverse change to surface soil chemistry;" erosion magnitude and potential low. 147

The statement the Appellant refers to at FEIS\_004526 is actually two statements, "[n]o adverse change to surface soil chemistry from fugitive dust deposition" (emphasis added) is located in Table 4.14-1, at FEIS\_004526, and specifically addresses fugitive dust at the mine site. The portions of Table 4.14-1 stating "erosion magnitude and potential low" are located at FEIS 004529 and 004530, referring to the port site and the natural gas pipeline corridor, respectively. Neither of these statements is conclusive of the impacts on soils relative to the overall proposal.

The PIR is a process that includes consideration of all available information, including information received from the applicant, the public, and other agencies. While the FEIS contains the bulk of the available information utilized in the decision-making process, it does not itself represent a decision on the merits of an overall proposal.

As described in the FEIS and the ROD, there were many public comments received relative to soils. 148 The four sentences the Appellant refers to regarding soils are in ROD section B3.1.1.1. Specifically, the District states:

The project would involve directly and indirectly disturbing, removing and covering over 10,000 acres of soil. Some of the soil would be stockpiled for reclamation and closure activities and some would be used in the construction of the infrastructure, however the original seedstocks and soil structure would not be expected to return to pre-project attributes. The cumulative impacts to soils would be from the project and the limited development in the villages of Newhalen, Iliamna, and Pedro Bay. The proposed project would have adverse effects on soils at the local level. 149

As described at ROD Attachment B3, the FEIS contains supporting information for all the relevant PIR factors, as supplemented by information contained in the ROD itself. 150 Additional information relative to comments received and the District's analysis of the PIR factors is located in ROD Attachments B1 and B8.

ROD Attachment B1 is a summary of comments received between the close of the DEIS comment period and the ROD and includes the following statement about soils: "Comments were received on concerns over soil erosion, metals toxicity to soil, and contamination from fugitive dust, particularly in an expanded mine scenario."151

<sup>&</sup>lt;sup>146</sup> Request for Appeal 36, footnote 195.

<sup>&</sup>lt;sup>147</sup> Request for Appeal 36, footnote 195, citing FEIS\_004526.

<sup>&</sup>lt;sup>148</sup> FEIS 000623-629 see also ROD 000121-22 and ROD 000515

<sup>&</sup>lt;sup>149</sup> ROD 000140.

<sup>&</sup>lt;sup>150</sup> ROD 000139.

<sup>&</sup>lt;sup>151</sup> ROD 000121.

ROD Attachment B8 is the PIR Matrix, addressing all the PIR factors considered. In the District's consideration of comments on soils, the PIR Matrix includes this statement: "There would be direct impacts to soils in the project area and in the area adjacent to the project with the deposition of dust" <sup>152</sup> Under the heading of Reasonably Foreseeable Detriments of the project relative to (soils) factor: "Impacts to soils resources would include those related to soil disturbance, soil quality, and erosion within the project footprint." 153 Notably, the PIR Matrix also points out there were no positive comments received relative to the soils PIR factor, and the District found no benefits related to the factor.

The Appellant states that the District did not explain the context or scale of local impacts relative to soils. However, the AR reflects that the District did explain the context of what it meant by local. ROD Attachment B3 describes the PIR process and indicates that the PIR factors "were identified in a USACE Memorandum for Record, (dated December 26, 2017, Attachment B9 of this ROD, here-in after [sic] referenced as USACE 2017)"154. This discussion also states that "For each PIR factor, the context under which the factor would be evaluated was identified in the Public Interest Review Matrix. The preliminary determinations of the context for each factor was [sic] identified prior to scoping, in USACE 2017. The context for some of the factors was revised based upon comments received."155

As mentioned, the PIR Matrix lists the context for the soils PIR factor as "local". 156 USACE 2017 contains a table of each of the public interest review factors and the District's preliminary determination of their context. This table lists the context for soils as "project construction sites and adjoining properties (local)". 157 Since the District pointed to this document in the opening discussion about PIR, and there is no additional information in the ROD or the FEIS that points to a change in the context based on comments, the context of "local" is as described in the USACE 2017 table. With regard to scale of impacts, the B3.1.1.1, paragraph cited above clearly states that the project would directly or indirectly affect more than 10,000 acres of soil. 158

It is not unreasonable for the District to conclude adverse impacts to soils based on evaluation of the data collected in the FEIS and from public comment. The proposal would directly or indirectly impact 10,000 acres of soils, and there are no benefits linked to this PIR factor. The AR reflects that the District had adequate information to perform the PIR analysis relative to soils, and there is no evidence to suggest, or reason to believe, that the District's consideration of the soils PIR factor was flawed, improperly

<sup>&</sup>lt;sup>152</sup> ROD 000515.

<sup>&</sup>lt;sup>153</sup> ROD 000515.

<sup>&</sup>lt;sup>154</sup> ROD 000139.

<sup>&</sup>lt;sup>155</sup> Ibid.

<sup>&</sup>lt;sup>156</sup> ROD\_000515.

<sup>&</sup>lt;sup>157</sup> ROD 000555.

<sup>&</sup>lt;sup>158</sup> ROD 000140.

weighted, or otherwise lacking in analysis. This portion of RFA III. does not have merit.

## III.A. The PIR Arbitrarily Finds the Demonstrated Benefits of the Project to be Outweighed by Speculative Economic Harms.

The Appellant states that the District incorrectly determined that economic benefits are primarily limited to the Appellant, stating that the record demonstrates "significant, longterm economic benefits to local communities, the region, the state, and the nation." The Appellant also claims that the District's conclusion that there are economic detriments sufficient to offset the beneficial economic impacts is unsupported by the record, stating "The vague and speculative economic "detriments" referenced in the ROD cannot reasonably be deemed to outweigh the significant long-term economic benefits of the project."159 The Appellant points to the FEIS, which it claims found the overall economic benefits to be substantial, including increased income, employment, and educational attainment, as well as significant state and local tax revenues. The Appellant indicates there is a direct contradiction between the District's statement in the ROD that the socioeconomic benefits of the project would be localized and of brief duration, and the FEIS finding that "the project would provide long-term beneficial impacts to the economy from employment and income in the region and state "160 (emphases added by Appellant)

In the PIR Matrix, the District states:

The proposed project would have beneficial and detrimental socioeconomic impacts at a local, regional, and State scales. The project would create jobs and offer steady income to those employed. However, it would be anticipated that the impacts would be localized and of brief duration. 161

It is not clear why the District uses the term "brief duration" here. As the Appellant states, the FEIS describes the economic benefits as long term. 162 In addition, the District does not describe any of the other PIR factor benefits or detriments as "brief duration". While the sentence in question refers to "the impacts", not "the beneficial impacts" or "the detrimental impacts", the District does not provide adequate explanation of why the benefits here would be deemed brief duration.

Specific points made by the Appellant relative to RFA III.A. are discussed below.

<sup>161</sup> ROD 000531.

<sup>&</sup>lt;sup>159</sup> Request for Appeal 36.

<sup>&</sup>lt;sup>160</sup> Id.

<sup>&</sup>lt;sup>162</sup> FEIS 004279.

#### III.A.1. The Local and Regional Socioeconomic Benefits are Significant and Long Term.

The Appellant states that the local economic benefits of the project are clear and much needed, stating that the "FEIS found the "increase in job opportunities, year-round or seasonal employment, steady income, and lower cost of living ... would have beneficial impacts on the EIS analysis area, especially for [local] communities."163

The Appellant further discusses the revenue benefits to local communities, as the project would "generate \$27 million annually in severances taxes for the Lake Peninsula Borough (LPB) during operations, and annual property tax revenue to the Kenai Peninsula Borough based on assessed value of project-related real property."164

The Appellant then lists a series of FEIS citations that represent the positive socioeconomic impacts in the RFA:

- Communities near the mine site and ferry/port terminals would likely see a beneficial impact of higher employment rates.
- The project is likely to reduce transportation costs (thereby reducing the cost of living) to communities near the transportation corridor, should arrangements be made to allow controlled public use of the mine and port access roads and spur roads.
- The natural gas pipeline would also provide opportunities for adjacent communities to **lower their winter heating costs**, a positive impact.
- employment through the project would have beneficial economic effects on minority and low-income communities lasting for the life of the project.
- indirect employment opportunities would increase from the services that would be needed to support construction and operations activities (e.g., air services, goods, and supplies).
- Local employment opportunities could offset current trends of outmigration in some communities and provide service fee revenue to maintain or even improve community infrastructure.
- an increased revenue stream to the LPB, along with stabilization of population levels attributable to employment opportunities, could result in

<sup>&</sup>lt;sup>163</sup> Request for Appeal 36-37, citing FEIS\_003436.

<sup>&</sup>lt;sup>164</sup> Request for Appeal 37, citing ROD 003429-30.

**improvements to community health care facilities** throughout the borough.

- The income earned by residents close to the mine working for PLP was greater than the income earned for commercial fishing, indicating that even the limited employment during the exploratory phase had large impacts on the communities.
- wages earned would likely be higher than the median household incomes of the potentially affected communities (see Section 3.3, Needs and Welfare of the People—Socioeconomics), which would be an improvement to the welfare of the community members. an increase in tax revenue to the LPB and the education programs supported by PLP could benefit schools and the student population. In addition, local employment opportunities associated with the project could reduce population decline in some communities, which could allow schools at risk of closing to remain open. It may also allow the school district to offer expanded services such as the expansion of vocational education. (emphases added by Appellant)

The first four of these statements listed in the Request for Appeal are from the executive summary portion of the FEIS, under socioeconomics<sup>165</sup> and environmental justice.<sup>166</sup> The remainder of the statements come from Chapter 4.3 of the FEIS, in sections 4.3.3.1 and 4.2.3.2.<sup>167</sup>

The issue of economic and socioeconomic impacts of the project is not limited to any one section of the FEIS or the ROD. Although economic and socioeconomic factors are largely contained under Economics and Needs and Welfare of the People PIR factors, economic impacts are contained to a lesser degree in other PIR factors, such as floodplain values, fish and wildlife values, land use, energy needs and mineral needs. The Appellant's list above highlights many of the economic benefits of the project. In ROD Attachment B1, the District includes a summary of both positive and negative comments received, indicating there were 13,911 comments received relative to social factors. Not all of these comments are specific to economics, but many are, and include specific concerns such as potential harm to commercial fisheries (affecting local, state, national and international economics), food security and the alteration or loss of subsistence-based lifestyles, and potential risk to recreational opportunities. The District provides a summary of its consideration of these comments in Attachment B8.<sup>168</sup>

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<sup>&</sup>lt;sup>165</sup> FEIS\_003429-30.

<sup>&</sup>lt;sup>166</sup> FEIS 003435.

<sup>&</sup>lt;sup>167</sup> FEIS 004274-81.

<sup>&</sup>lt;sup>168</sup> See, e.g. ROD\_000531-32 and ROD\_000547.

The District's conclusion for the Needs and Welfare of the People PIR factor demonstrates a net-zero conclusion based on both beneficial and detrimental impacts:

The proposed project would have off-setting<sup>169</sup> adverse and beneficial impacts to the local area, the region, and to the state. The proposed project would have a beneficial effect on regional and local surface transportation by making it more economical and improving infrastructure. The proposed project would have a negligible adverse effect on regional and state air transportation and vessel transportation by increasing travel along existing routes without increasing infrastructure.<sup>170</sup>

The District's conclusion for the Economics PIR factor is also net-zero:

The proposed project would have off-setting adverse and beneficial impacts to the local area, the region, the state, and the nation. The adverse effects would outweigh the benefits at the local and regional level, and the benefits would outweigh the detriments at the state, and national level.<sup>171</sup>

The Appellant objects to the District statement that the local and regional adverse economic effects would outweigh the benefits, asserting that the District relies on pure conjecture to support this finding. The Appellant highlights the qualifying language used in some of the ROD statements, calling them a "speculative parade of horribles" with no support in the record:

- If high-harvesting members of the community find project-related employment and have less time for subsistence activities, the rest of the community and households in other communities could end up receiving less wild food through sharing and trading relationships. Increased employment of adults in the communities could impede the amount of time spent teaching young people to hunt, fish, gather, process, and preserve subsistence resources which would impact the amount and quality of traditional knowledge passed on to younger generations, potentially resulting in a long-term or permanent adverse effect to communities.
- At mine closure both time commitments for and cash income from project employment would decline, depending on employment opportunities associated with closure and monitoring activities, and some residents may move away as job opportunities cease.

KOD\_000346.

<sup>172</sup> Request for Appeal 39.

<sup>&</sup>lt;sup>169</sup> During the Conference, the District clarified that off-setting adverse and beneficial impacts "essentially equals a zero net benefit or detriment."(MFR 13).

<sup>&</sup>lt;sup>170</sup> ROD\_000531-32.

<sup>&</sup>lt;sup>171</sup> ROD 000548.

- Some decreases of cost of living may increase to pre-project levels [post closure].
- It is possible that the project could produce additional strain on the health and safety services of the potentially affected communities if violent crimes increase due to increased psychosocial and family stress due to the project.
- The new economic opportunities in the area could negatively impact community cohesion for a community that is currently reliant on subsistence and community sharing lifestyles. (emphases added by Appellant)

All the above statements occur in the ROD at the summary of the Economics PIR factor, and again in the PIR Matrix. 173 All of the statements are also based on information found in the FEIS, as described below. Emphasis in italics is added by the Appellant. The use of the qualifying words "could", "if", "possible", etc., is appropriate when discussing future effects with an unknown quantity. For example, there is no expectation that the District know the exact number of individuals that will seek mine employment over subsistence activities, or what those individuals' subsistence contribution to the community is currently, only that it is reasonably foreseeable effect.

The Economics section of the ROD includes a discussion of how the economics PIR is evaluated.

"The evaluation of the general public interest includes evaluating the economic importance of the project to the local community and the project's potential contribution to needed improvements in the local economic base, including such factors as employment, tax revenues, community cohesion, community services, and property values."174

This section of the ROD includes specifics regarding such benefits as employment, tax revenue, reduced heating costs, and reduced costs of goods and services. This section also discusses the potential detriments such as damage to community cohesion in communities reliant on subsistence and sharing, increased strain on community services, and reduced property values on properties adjacent to the mine site. In Attachment B8, the PIR Matrix summarizes all the above and points to specific locations in the FEIS where elements of the PIR factors are analyzed. It also lists categories of negative and positive comments toward each factor.

The above statements are either direct quotes or are derived from information in the FEIS, in the sections addressing subsistence, health and safety, and needs and welfare of the people. For example:

<sup>&</sup>lt;sup>173</sup> ROD 000158-60; ROD 000514-53.

<sup>&</sup>lt;sup>174</sup> ROD 000158.

Out-migration of mine project employees from local communities has been identified as an adverse sociocultural effect on subsistence and cultural continuity if high-harvesting households relocate. 175

At closure, both time commitments for and cash income from project employment would decline, depending on local employment opportunities associated with closure and monitoring activities. Households would have to adjust to reduced cash income to support the maintenance and operating costs of a subsistence lifestyle. Some residents may move away as job opportunities cease. The beneficial and adverse indirect effects of mine employment and income on subsistence practices would decrease. Some long-term impacts may include loss of subsistence knowledge and skills and/or decrease in participation during mine operations continuing after closure. 176

Reduced transportation costs would lower the cost of living for these communities, many of which are minority and low income. These benefits may cease if the roads are reclaimed at the end of the project. 177

Natural gas would likely be less expensive than diesel heating oil. This impact could lower cost of living once community-based equipment (e.g., furnace, water heater) is converted to natural gas. However, communities would be responsible for funding the connections and conversions. After mine closure, the pipeline would be decommissioned and there would no longer be natural gas available for community use, unless otherwise negotiated between the communities and utility providers. 178

Increases in psychosocial stress may result in increases of violent crime in the potentially affected communities. 179

To the extent that project-related employment reduces the time available for these employees to participate in subsistence activities and to pass on skills and knowledge to the next generation, harvest effectiveness may decline.180

The Appellant asserts that these listed detriments are not reasonably foreseeable, and questions why the District does not provide an explanation in the record of why the detriments are not offset by the benefits of the project. During the Conference, the Appellant also generally disagreed with the District that the above statements represent

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<sup>175</sup> FEIS 004282.
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<sup>177</sup> FEIS\_004299.

<sup>&</sup>lt;sup>176</sup> Ibid.

<sup>&</sup>lt;sup>178</sup> FEIS 004275.

<sup>&</sup>lt;sup>179</sup> FEIS\_001639.

<sup>&</sup>lt;sup>180</sup> FEIS 004282.

probable or significant effects. It is important to note that "significant" is not a threshold in the PIR. The PIR is evaluated on a scale that includes adverse, beneficial, or no effect. 181

As discussed, the PIR is a process by which the benefits which reasonably may be expected to accrue from a proposal are balanced against its reasonably foreseeable detriments, individually, and cumulatively. The regulation at 33 C.F.R. §320.4(a)(1) does not dictate how the balancing is to occur, outside of the word "careful". In the case of the Economics PIR factor, the District performed its evaluation based on the information available in the FEIS and from public comments, and determined that the benefits offset the detriments, resulting in a net-zero effect. The Appellant believes that the benefits should have outweighed the detriments. However, it is the District's responsibility to determine the effect on each factor. The weight of a specific factor in the overall PIR is subject to the reasonable judgment of the District.

The Appellant then states:

"...the District speculates that local communities would be worse off once the mine closes. The ROD alleges several "detriments" at mine closure, including reduced employment and the cessation of tax revenues."182

It is well established that the benefits associated with the proposal are not permanent. The regulations require analysis of the permanence of effects as part of the PIR:

- (2) The following general criteria will be considered in the evaluation of every application:
  - (i) The relative extent of the public and private need for the proposed structure or work:
  - (ii) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and
  - (iii) The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited (emphasis added).183

The District's treatment of the post-closure effects as detriments may have improperly weighted the analysis of the Economics PIR factor. A time limit on the benefit provided by the project is not the same as a detriment caused by the project. As the Appellant points out, "the post-closure detriments listed in the ROD are current baseline

<sup>&</sup>lt;sup>181</sup> ROD 000138-39

<sup>&</sup>lt;sup>182</sup> Request for Appeal 39.

<sup>&</sup>lt;sup>183</sup> 33 C.F.R. §320.4(a)(2).

conditions, such as high cost of living and outmigration."<sup>184</sup> The ROD does not provide adequate justification for treating these events as detriments.

The Appellant states there is an assumption in the ROD that "all socioeconomic benefits would return to pre-project levels (or worse)". The ROD does not reflect that the District assumed *all* socioeconomic benefits would return to pre-project levels. The Appellant also indicates, with reference to the road and port, that the District incorrectly assumed the "benefits of such project infrastructure will disappear at closure". The Appellant provides no AR citations backing the claim that the District made this assumption. Regarding the port, the ROD states: "The applicant proposes to remove and reclaim the port facilities after closure activities are completed." This indicates that for the port, the benefits do not continue post-closure.

The Appellant then states: "The FEIS, by contrast, recognizes that local communities could use the Project revenue to make long-term improvements, including to community infrastructure and community health care facilities." This statement implies that the District did not address this in the ROD, but the cited statement from the FEIS is clearly reflected in the ROD: "The increased tax revenues in the local communities from the project could be used to increase or improve community services, such as healthcare and safety services." 189

The Appellant uses long-term infrastructure benefits as an example of the District downplaying long-term benefits, where the ROD states the natural gas pipeline may not continue after operations cease (Needs and Welfare of the People, section B3.1.1.14). The Appellant points to the Energy section (B3.1.1.24) which states that the Appellant would engage with state and local options to continue operation of the pipeline after closure.

The specific ROD statements the Appellant is referring to are:

However, post closure there is no guarantee that those individuals that convert to using natural gas would continue to have access to a natural gas source and therefore would be need for the reconversion back to use of previous fuel sources which would be a financial burden. 190

and:

<sup>&</sup>lt;sup>184</sup> Request for Appeal 39.

<sup>&</sup>lt;sup>185</sup> Request for Appeal 39.

<sup>&</sup>lt;sup>186</sup> Request for Appeal 40.

<sup>&</sup>lt;sup>187</sup> ROD\_000011.

<sup>&</sup>lt;sup>188</sup> Id, citing FEIS 004275-76.

<sup>&</sup>lt;sup>189</sup> ROD 000158.

<sup>&</sup>lt;sup>190</sup> ROD 000149.

PLP would engage with state and/or local governments about options to continue operation of the pipeline when it is no longer required by the project.<sup>191</sup>

Both statements appear to support a statement that the benefit of the pipeline may not be permanent. As there is no evidence that any agreements were in place at the time of the decision to keep the pipeline in operation post-closure; it is not unreasonable for the District to make statements acknowledging the possibility that this benefit would end. PLP agreeing to engage with state and local governments post-closure about continued operations does not guarantee an agreement will be reached and service will continue post-closure.

The Appellant also asserts that the District's statements regarding negative impacts on subsistence are speculative. The Appellant states that: "The ROD's assumption of a dichotomy between Project employment and subsistence is unsupported." The Appellant states that locals who are employed by the project would not have to move away, and that the use of rotational shifts and planned periods of leave allows individuals to participate in the community and subsistence-related activities. The Appellant cites the FEIS, stating that the District's ROD claim that project employment would negatively impact subsistence is contradicted:

The effect of income on subsistence success (i.e., subsistence production) is evident among households with unique demographic structures. The magnitude of the effect of income is such that in many communities, 30 percent of households produce 70 percent of the subsistence harvest. These "super households" are distinguished because they include multiple working-age males, tend to have high incomes, and often are involved in commercial fishing. These three factors support high-producing households to be able to combine subsistence activities with paid employment and to arrange considerable labor in flexible ways that maximize harvests of subsistence foods, which are then shared with other households in the community and region. 193

While this is an accurate citation, as mentioned above, the FEIS also acknowledges "*To the extent* that project-related employment reduces the time available for these employees to participate in subsistence activities and to pass on skills and knowledge to the next generation, harvest effectiveness *may* decline (emphasis added)."<sup>194</sup> Further, the regulations require consideration of all comments as part of the PIR. 33 C.F.R. §320.4(a)(3) states "...full consideration and appropriate weight will be given to all comments." The District acknowledges in the ROD that economics was one of the top five concerns received in public comment and specifically points to comments received

<sup>&</sup>lt;sup>191</sup> ROD\_000157.

<sup>&</sup>lt;sup>192</sup> Request for Appeal 40.

<sup>&</sup>lt;sup>193</sup> FEIS\_004403.

<sup>&</sup>lt;sup>194</sup> FEIS 004282.

regarding "detrimental impacts to subsistence-based lifestyles with the introduction of new economic opportunities and the introduction of outside workers to the area." <sup>195</sup>

The Appellant also correctly states that the FEIS "found no impact to fish and game resources available for subsistence harvests." However, the ROD does not reflect any alternate conclusions or statements by the District.

The Appellant states that it is up to individual community members to make decisions as to how best to meet their subsistence and other needs, including whether to pursue mine employment in the first place.<sup>197</sup> This is a true statement. It is also true that many of those community members expressed concern via public comments about potential detrimental impacts to subsistence-based lifestyles as a result of the project.<sup>198</sup> In accordance with 33 CFR §320.4(a)(1), "Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case." As previously stated, this involves collecting available information, including that received from the applicant, the public, and other agencies.

The Appellant summarizes its discussion of RFA III.A.1. as follows:

The significant local socioeconomic benefits of the Pebble Project are thus demonstrated in the record, including jobs, economic activity, tax revenues, energy and transportation infrastructure, lower cost of living, and education. The District's assertion that these demonstrated benefits are outweighed or off-set by speculative adverse socioeconomic effects is baseless.<sup>199</sup>

As discussed above, the PIR is a careful weighing of all the relevant factors in a particular case. Although the District's ROD reflects adequate information drawn from the FEIS and from comments received to support most of its conclusions relative to the economics PIR factor, the discussion of post-closure effects as detriments may have unduly weighted the analysis of the economics PIR factor. In addition, there is no explanation in the ROD for why the Needs and Welfare of the People PIR section describes jobs and increased income as brief duration. For these reasons, *RFA III.A.1.* has merit. This RFA is remanded to the Alaska District Engineer for reconsideration, additional evaluation, and documentation sufficient to support the decision. Specifically, the District should consider its PIR analysis relative to the Needs and Welfare of the People PIR factor and adequately describe its determinations of the extent and permanence of the benefits and detriments. Additionally, the District should re-evaluate

<sup>196</sup> Request for Appeal 40, FEIS\_004396: "Overall, impacts to fish and wildlife would not be expected to impact harvest levels because no population-level decrease in resources would be anticipated."

<sup>&</sup>lt;sup>195</sup> ROD 000159.

<sup>&</sup>lt;sup>197</sup> Request for Appeal 40.

<sup>&</sup>lt;sup>198</sup> ROD 000159.

<sup>&</sup>lt;sup>199</sup> Request for Appeal 40.

the analysis under the Economics PIR factor and the assignment of post-project 'expiration of benefits' as economic detriments.

#### III.A.2. The District Understates the Economic Benefits to the State

The Appellant states that the ROD attempts to downplay the economic benefits to the State of Alaska, adding that the District's assertion that the economic benefits are offset is arbitrary and unsupportable.

While the District admits that the benefits to the state outweigh the detriments, it still alleges that the state benefits are not sufficient to offset the local economic "detriments" discussed above. 200

The Appellant states that while the ROD "makes only passing reference to the State's tax revenue from the project", the FEIS "clearly documents the tax and other economic benefits of the project." The Appellant then refers to the State's deficit and need to diversify its revenue stream. The FEIS includes estimated numbers in state corporate and mining taxes and royalty payments totaling approximately \$125 million dollars annually.<sup>201</sup> The Appellant also points to the FEIS statements "[o]verall, the project would provide long-term beneficial impacts to the economy from employment and income in the region and state"202 and "[t]he project would generate \$25 million annually in state taxes through construction, and \$84 million annually in state taxes and royalty payments during the operations phase "203"

The Appellant states that the State of Alaska designated the lands where Pebble is located "for the purpose of mining and economic development", pointing to FEIS statements about the Bristol Bay Area Plan:

The Bristol Bay Area Plan divides the Bristol Bay area into 20 regions with management units. The mine site would be in Region 6. The transportation corridor would be in regions 6, 8, and 10 under Alternative 1a; regions 6, 9, and 10 under Alternative 1; and regions 6, 8, and 9 under Alternative 2 and Alternative 3. At the mine site, Region 6 is designated for mineral development, among other uses; and managed to ensure that impacts to the anadromous and high-value resident fish streams are avoided, reduced, or mitigated as appropriate in the permitting processes.<sup>204</sup>

and;

<sup>&</sup>lt;sup>200</sup> Request for Appeal 41, citing ROD\_000160

<sup>&</sup>lt;sup>201</sup> FEIS 004280.

<sup>&</sup>lt;sup>202</sup> FEIS 004279.

<sup>&</sup>lt;sup>203</sup> FEIS 004280.

<sup>&</sup>lt;sup>204</sup> FEIS 003601.

The project would generally be consistent with the plan's goals for the use of subsurface resources, which call for making metallic and non-metallic minerals available to contribute to the mineral inventory and independence of the US generally and Alaska specifically, while protecting the integrity of the environment and affected cultures. 205

While mineral extraction can be presumed to lead to some economic benefit, neither these statements nor the Bristol Bay Area Plan (BBAP) references economic development as one of the managed uses in Region 6. As of the date of the decision, the State had not yet made a determination of the project's compliance with the BBAP.

#### The Appellant states:

As the FEIS provides "the public also has an interest in improving the economy of the state, in the creation of jobs in the state, and in the extraction of natural resources for the benefit of the state. This is demonstrated by scoping comments, which indicated a desire to bring economic opportunity and jobs to the region, as well as by policy language in the Alaska State Constitution and Alaska Statutes encouraging development of the state's mineral resources consistent with the public interest." The ROD's finding that the overall economic benefits of the Project are not sufficient to outweigh the speculative economic harms identified is arbitrary and unsupportable.<sup>206</sup>

The full citation the Appellant is referring to is from the FEIS discussion of purpose and need. While acknowledging that the public has an interest in mineral development, it also points to the public's interest in protecting the state's natural resources:

The USACE has determined that PLP's stated purpose is made too narrow by limiting the proposed development to the Pebble deposit. The public's interest in commodities such as copper, gold, and molybdenum does not dictate a particular source of these commodities and the public has also expressed interest in protecting the state's natural resources, such as fisheries. Additionally, although PLP has identified a need for these minerals and USACE assumes that a private applicant has completed appropriate economic evaluations and proposed a project that is needed in the marketplace, the primary minerals—copper, gold, and molybdenum—are not mineral commodities considered to be critical to the economic or national security of the United States as reflected in the national policy, "A Federal Strategy to Ensure a Reliable Supply of Critical Minerals." However, the public also has an interest in improving the economy of the state, in the creation of jobs in the state, and in the extraction of natural resources for the benefit of the state. This is demonstrated by scoping comments, which

<sup>206</sup> Request for Appeal 42.

<sup>&</sup>lt;sup>205</sup> FEIS 004252.

indicated a desire to bring economic opportunity and jobs to the region, as well as by policy language in the Alaska State Constitution and Alaska Statutes encouraging development of the state's mineral resources consistent with the public interest.<sup>207</sup>

The AR reflects that the District did consider information relative to the State's interest in the project, by acknowledging both the tax revenue and the policy and statutory language related to mineral development. The existence of these policies and statutes does not automatically provide the weight needed for the District to determine that the economic benefits outweigh the detriments. As previously stated, it is the District's responsibility to determine the effect on each factor. The weight of a specific factor in the overall PIR is subject to the reasonable judgment of the District. There is no evidence to suggest, or reason to believe, that the District's consideration of the State's interest in the economics of the project was inadequate or otherwise flawed. RFA III.A.2. does not have merit.

## III.A.3. The District Fails to Fully Consider the Economic Benefits of, and Public **Need for, the Extracted Minerals**

**Importance of Minerals.** In RFA III.A.3., the Appellant asserts that the mineral resources to be extracted are critically important to the nation, and that "[t]he Project could supply a significant portion of the country's requirements for copper, which is central to a low carbon future, as well as important minerals such as rhenium and molybdenum."208 The Appellant points to Section B3.1.1.26 of the ROD, claiming that the District fails to mention what the minerals are used for in our society.<sup>209</sup>

Although section B3.1.1.26 (Mineral Needs) does not explicitly discuss the uses of the minerals, section B3.2.1 does, in the discussion of the public and private need for the project it states:

Copper is used in building construction, including copper wiring and plumbing, power generation and transmission, electronics, as well as in the production of industrial machinery and cars and trucks (Doebrich, 2009, Attachment B10 of this ROD). Molybdenum is used as an alloy with steels, to enhance hardness, strength, and resistance to corrosion, including in steel used in the construction of skyscrapers, construction equipment, car parts, gas transmission pipes, as well as catalysts, lubricants, and pigments (Kropschot, 2010, Attachment B10 of this ROD). Gold is used in manufacturing, including electronics circuitry, in jewelry and decorative arts, as well as for investment uses (Butterman and Amey III, 2005, Attachment B10 of this ROD).<sup>210</sup>

<sup>&</sup>lt;sup>207</sup> FEIS 002994.

<sup>&</sup>lt;sup>208</sup> Request for Appeal 42.

<sup>&</sup>lt;sup>209</sup> ROD 000160.

<sup>&</sup>lt;sup>210</sup> ROD 000163.

These discussions of the uses of copper, gold, and molybdenum are reflective of the corresponding statements in the FEIS, cited by the Appellant in this RFA.<sup>211</sup> It is appropriate for the District to limit this discussion to those three minerals, as their extraction is the overall project purpose. The District also addresses the critical nature of these minerals in section B3.2.1:

Copper, gold, and molybdenum are not designated by the U.S. as critical minerals requiring an increase in domestic production, palladium, and silver are also present within the proposed mine footprint. Rhenium has been identified as a critical mineral in the U.S.<sup>212</sup>

There is no evidence to suggest, or reason to believe that the District neglected to consider the uses of minerals identified in the project purpose in its PIR analysis. *This portion of RFA III.A.3. does not have merit.* 

Alternative Locations Within the US. The Appellant states that the District downplays the public need for the Project by stating that alternative locations exist to produce these minerals within the US. The Appellant indicates that there is no support in the ROD or in the record for this statement, including location, resources available, permitting status, or timing of potential extraction.

The Appellant correctly points out that the PIR regulations do not provide that a permit can only be issued if the proposal represents the only available alternative, rather, that in cases involving private applicants, it will generally be assumed that the applicant has performed appropriate economic evaluations and that the proposal is needed in the marketplace. The portion of the regulation the Appellant cites here also states "[h]owever, the district engineer in appropriate cases, may make an independent review of the need for the project from the perspective of the overall public interest." In its discussion on economics, the District states that the district engineer did just that, requesting and reviewing additional economic data provided by the Appellant.

Regulations at 33 C.F.R. §320.4(a)(2)(ii) require the District to consider "[w]here there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work."

<sup>&</sup>lt;sup>211</sup> Request for Appeal 42.

<sup>&</sup>lt;sup>212</sup> ROD 000164.

<sup>&</sup>lt;sup>213</sup> 33 CFR 320.4(q).

<sup>&</sup>lt;sup>214</sup> ROD 000158.

In section B3.2.2. of the ROD, the District states there are unresolved conflicts as to resource use and describes some of the conflicts associated with the State of Alaska designations of the land as well as the use of the land for tribal subsistence and cultural activities. The District goes on to state in this section that "[t]he objective of the proposed project is to extract copper, gold and molybdenum for processing and sale outside of the U.S. Alternative locations exist to produce these minerals within the U.S. at this time." <sup>215</sup>

The Appellant asserts that the District statement that other sites are available is contrary to the FEIS, which found that the overall project purpose is to develop and operate a copper, gold, and molybdenum mine *in Alaska* to meet current and future demand.<sup>216</sup>

When asked about the alternatives statement during the Conference, the District pointed to Appendix B1 of the FEIS, which includes a table of alternatives. This table includes potential off-site alternatives within Alaska and within the United States. All of the off-site alternatives listed were excluded from further analysis.<sup>217</sup>

Although the regulation does not define the word "objective" as it is used in 33 C.F.R. §320.4(a)(2)(ii), the dictionary definition and context indicates that "objective" is interchangeable with "purpose". The District determined that the overall project purpose is to develop and operate a mine in Alaska, and through an alternatives analysis, identified the proposed project as the Least Environmentally Damaging Practicable Alternative (LEDPA). Although there is a discussion in the ROD of other locations within the US where these minerals are extracted, 218 there is no clarifying discussion about why the District believes those locations might be practicable or reasonable, given it had already determined the proposed project is the LEDPA. *This portion of RFA III.A.3. has merit.* The District should re-evaluate and consider this portion of the PIR and provide adequate discussion of alternatives it has identified as meeting the regulatory requirement of "practicability of using reasonable alternative locations and methods."

**Export Outside the US.** The Appellant objects to the District statement "[t]he objective of the proposed project is to extract copper, gold and molybdenum for processing and sale outside of the U.S."<sup>219</sup> stating that this implies that export plans would diminish the public interest in the project. The Appellant argues that "[t]he fact that some of the mineral resources will be exported does not decrease the public interest in the Project and the extracted resources."<sup>220</sup> There is no evidence to suggest, or reason to believe, that the District statement is intended to imply that export diminishes the public interest in the project. **This portion of RFA III.A.3. does not have merit.** However, on remand

<sup>216</sup> FEIS 002995.

<sup>&</sup>lt;sup>215</sup> ROD 000164.

<sup>&</sup>lt;sup>217</sup> FEIS\_000315.

<sup>&</sup>lt;sup>218</sup> ROD 000163-64.

<sup>&</sup>lt;sup>219</sup> ROD 000164.

<sup>&</sup>lt;sup>220</sup> Request for Appeal 43.

as discussed above, the District should consider re-evaluating and revising this statement to ensure that the stated "objective" aligns with project purpose.

## III.B. The PIR Relies on Speculative Harms to Fisheries that Lack Any Support in the Record

**Impacts to Salmon.** In RFA III.B., the Appellant cites the FEIS findings that there would be no measurable impact to salmon:

There would be no measurable change in the number of returning salmon... Under normal operations, the Alternatives would not be expected to have a measurable effect on fish numbers and result in long-term changes to the health of the commercial fisheries in Bristol Bay.<sup>221</sup>

and;

The mine site is not expected to affect Cook Inlet commercial fisheries.<sup>222</sup>

and;

[The LEDPA] would not be expected to have measurable effects on the number of adult salmon, and therefore would have no impact to commercial fisheries.<sup>223</sup>

The Appellant states that the District did not take these conclusions directly from the FEIS, but still suggests a risk to fish, emphasizing the detrimental impacts of habitat loss within the mine footprint. The statement the Appellant is referring to is:

Detrimental impacts include permanent loss of all fish and wildlife habitat within the 13.1 square mile mine footprint to include the permanent loss of 2,051 acres of pristine wetlands, 99.7 river miles of stream, and 62 acres of open waters. These detrimental impacts are well established and not speculative. 224

The Appellant then quotes the FEIS, which includes the following:

...considering the physical characteristics and current fish use of habitat to be removed, the consequently low densities of juvenile Chinook and coho observed in the affected tributaries, and the few numbers of spawning coho observed (see Section 3.24, Fish Values), impacts to anadromous and

<sup>222</sup> FEIS\_004347.

<sup>&</sup>lt;sup>221</sup> FEIS\_003469.

<sup>&</sup>lt;sup>223</sup> FEIS 004347.

<sup>&</sup>lt;sup>224</sup> ROD 000165.

resident fish populations from these direct habitat losses would not be measurable, and would be expected to fall within the range of natural variability.<sup>225</sup>

The Appellant uses the terms "fisheries", pointing specifically at the salmon fisheries. <sup>226</sup> But that is not what the District statement says. The District statement points to "all fish and wildlife habitat" within the mine footprint. <sup>227</sup> As the District states, this is not speculative; it is factual that the direct impacts from the project would remove all habitat for fish species as well as other wildlife, such as birds, mammals, and other small vertebrate species within the footprint of the mine. This statement is not limited to salmon, nor is it limited to species that support other fisheries. *This portion of RFA III.B. does not have merit.* 

# III.B.1. The Record Demonstrates that a Catastrophic TSF Failure is Not Reasonably Foreseeable

In RFA III.B.1., the Appellant states that the District's primary basis for the adverse PIR finding appears to be the potential impacts from a catastrophic TSF failure, stating that "[t]he ROD raises the specter of a catastrophic TSF failure throughout the PIR to question the FEIS findings and support an adverse public interest finding."<sup>228</sup>

The Appellant states that the District contradicts the economic benefits of the project by stating that a catastrophic failure could cause economic harm if it occurred, due to fishery impacts. The Appellant also argues that the District uses the statement "there are risks that were not part of the analysis due to the very low probability of occurrence. For example, the analysis did not consider catastrophic failure," to contradict the FEIS findings of no population-level impacts to fish.

As previously discussed, the regulations require that the PIR be based on an evaluation of probable impacts on the public interest by weighing and balancing the benefits, and reasonably foreseeable detriments. The analysis of available information from the FEIS, public comments, and information provided by the Appellant are taken into consideration. The Appellant argues that the risk of a catastrophic TSF release is not reasonably foreseeable in this case.

During the Conference, the District was asked about its discussion of catastrophic failure in the ROD. The District pointed out that even if the FEIS determined it unlikely, it

<sup>&</sup>lt;sup>225</sup> FEIS\_005079.

<sup>&</sup>lt;sup>226</sup> Fishery: the occupation, industry, or season of taking fish or other sea animals (such as sponges, shrimp, or seals), https://www.merriam-webster.com/dictionary/fishery#:~: text=plural%20fisheries,3.

<sup>&</sup>lt;sup>227</sup> ROD 000165.

<sup>&</sup>lt;sup>228</sup> Request for Appeal 45.

<sup>&</sup>lt;sup>229</sup> ROD 000159-60.

<sup>&</sup>lt;sup>230</sup> ROD 000159.

is still necessary to evaluate under PIR. The District pointed to several places in the FEIS where spill potential and/or dam failure are addressed.<sup>231</sup> The District also pointed out that the FEIS acknowledges that failure is remote but it is a public concern that received comments, which supports addressing it in the PIR.<sup>232</sup>

In ROD section B3.2.3, "[t]he extent and permanence of the beneficial and/or detrimental (adverse) effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited—33 C.F.R. 320.4(a)(2)(iii)." The District includes the following statements:

The FEIS draws the conclusion that under optimal operation, with the operator complying with all applicable permits and no human error, that a detrimental impact to the commercial fishery is not anticipated.

and:

In the event of human error and/or a catastrophic event, the commercial and/or subsistence resources would be irrevocably harmed, and there is no historical scientific information from other catastrophic events to support restoration of the fishery to its pre-impacted state.<sup>233</sup>

The FEIS acknowledges the low likelihood and the public concern:

Although the probability of a catastrophic tailings failure of the bulk TSF main embankment is very remote (see Section 4.27, Spill Risk), there is public concern regarding the installation of any new TSFs, especially when there are human populations and/or fragile ecosystems downstream of the facilities.<sup>234</sup>

The District received extensive public comments on safety, including concerns regarding spills. It was the fourth largest number of substantive comments received from the public and other agencies. The District acknowledges that the risk of a full dam breach is low, but the consequences would be high.<sup>235</sup> Given the level of public concern, it is reasonable for the District to address the likely impacts of a failure.

The District does appear to put some emphasis on the idea of a "human error and/or a catastrophic event", in the paragraph cited above. The District clearly acknowledges under the Safety PIR that large spills are not expected:

<sup>233</sup> ROD 000165.

<sup>&</sup>lt;sup>231</sup> See, e.g. FEIS\_000460, FEIS\_005325, FEIS\_005333.

<sup>&</sup>lt;sup>232</sup> MFR 14.

<sup>&</sup>lt;sup>234</sup> FEIS 002315.

<sup>&</sup>lt;sup>235</sup> ROD 000161.

Under ideal conditions, the proposed project would have no impact on human safety as pertains to public interest. Unplanned accidents/releases/ spills could have detrimental effects to safety of people in the project area and downstream areas. Small spills are high probability with limited consequences; large spills are not reasonably foreseeable (emphasis added).236

There is a distinction here between small but high probability spills with limited consequences, and large catastrophic events with high consequences. Because the District found that large spills are not reasonably foreseeable, its discussion of them under the heading of 33 C.F.R. §320.4(a)(2)(iii)<sup>237</sup> is inappropriate. The District is required to analyze effects which are likely to occur, but the District found that a catastrophic event is not reasonably foreseeable.

Next, the Appellant states that the District claims the FEIS findings are based on optimal or ideal conditions. The spill risk analysis located at section 4.27 of the FEIS states: "[i]n assessing the level of risk during the FMEA workshop, it was assumed, per USACE guidelines, that BMPs and full operational/regulatory procedures would be followed (AECOM 2018k)."238 This section also acknowledges that modern dam failures are attributed to "human error in design, construction, operations and regulation, or some combination thereof."239 Thus, it is reasonable for the District to acknowledge that the risk of failure is low if all permit requirements are followed and there is no human error.

The Appellant also objects to the example given in the ROD of Mt. Polly, which experienced a dam failure in 2014 and has a similar design to the one being proposed.<sup>240</sup> The Appellant states that the District ignores key differences that are well documented such as a flowthrough design.<sup>241</sup> However, this same paragraph in the ROD includes a discussion of mitigation measures proposed by the Appellant:

Applicant proposed mitigation to offset concerns about tailings dam failures include, in brief, by proposing a "modified centerline" construction of the dams rather than building an "up-stream" construction for all of the three major impoundments (the Water Treatment Storage, the Bulk Tailings, and the Pyritic tailings storage), and by proposing a "pass through" dam for the bulk TSF which would reduce the potential for liquefaction of the materials

<sup>&</sup>lt;sup>236</sup> ROD 000552.

<sup>&</sup>lt;sup>237</sup> The extent and permanence of the beneficial and/or detrimental (adverse) effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited) (emphasis added)

<sup>&</sup>lt;sup>238</sup> FEIS\_005343.

<sup>&</sup>lt;sup>239</sup> FEIS 005339-40.

<sup>&</sup>lt;sup>240</sup> ROD 000162.

<sup>&</sup>lt;sup>241</sup> Request for Appeal 46.

as well as the applicant has committed to independent dam design and review prior to construction.<sup>242</sup>

In this paragraph, the District is acknowledging that there are differences between the example given with a "similar design" and the proposed project. The District also acknowledges that the State of Alaska will have to approve the final plans through its mine safety program. As of the date of the ROD, these approvals were not in place.

The District included the spill risk analysis in the FEIS, acknowledged the risk was low in the ROD and addressed it in the PIR due to public concern. However, the District may have unduly weighted the potential for catastrophic failure as "likely" while also stating that it is not reasonably foreseeable. Therefore, *RFA III.B.1. has merit.* On remand, the District should consider how it addresses the potential for catastrophic failure and clearly support its analysis in the decision, based on information in the administrative record.

## III.B.2. The Record Does Not Support any Adverse Impact from the Portfolio Effect

The Appellant asserts that the District admits that impacts to the Bristol Bay fishery are not anticipated, but then speculates potential harms anyway. Specifically, the Appellant objects to the District statement in the ROD that "[t]he project modeling has shown that the proposed project would not impact fish values down to the Bristol Bay fishery but may have a local portfolio effect." The Appellant states that this contradicts the FEIS, which states that "Impacts to Bristol Bay salmon are not expected to be measurable and given the vast breadth and diversity of habitat (and salmon populations) in the Bristol Bay watershed, impacts on the Portfolio Effect are certain but not likely to be noticeable in context of the Bristol Bay watershed."

Looking at the two citations in the above paragraph, it does not appear there is a significant difference between them. In the ROD statement, the District is acknowledging that a there may be a local portfolio effect, but it is not expected to impact the overall Bristol Bay fishery. The fact that the FEIS states "impacts on the Portfolio Effect are certain" supports the District's statement.

The Appellant also points to the Comment Analysis Report (CAR) discussion of comments, which states "[g]iven the breadth and diversity of habitat (and salmon populations) in the Bristol Bay watershed, the expected impacts of localized mine and transportation corridor development on the Portfolio Effect are not likely to be discernible; rather, the Portfolio Effect may help to minimize expected impacts of the

<sup>243</sup> ROD 000159.

<sup>&</sup>lt;sup>242</sup> ROD 000162.

<sup>&</sup>lt;sup>244</sup> FEIS 005080.

mine development on Bristol Bay's salmon fishery.<sup>245</sup> However, this section of the CAR also states at the beginning of the same discussion,

By potentially affecting streamflow, water temperature, and water quality, mine development is expected to have some synchronous effects on the three principal tributaries (NFK, SFK, and UTC); however, the effects are not expected to be discernible outside of those tributaries (e.g., not synchronous beyond the mine's immediate influence).<sup>246</sup>

Again, this statement supports the District's conclusion that local portfolio effects are possible, but not likely to impact the overall Bristol Bay fishery portfolio. The Appellant also objects to the District's statements about catastrophic failure not being analyzed. Catastrophic failure is addressed above in section III.B.1.

The Appellant also states that the District includes an EPA document on the Bristol Bay portfolio but does not discuss the relevance of this document to the ROD or FEIS conclusions. The Appellant further states that this document does not contradict the conclusions in the FEIS.<sup>247</sup> However, there is no evidence that the District intended to use this document to contradict the FEIS findings relative to the portfolio effect. The attachment<sup>248</sup> is listed in multiple categories in Attachment B7 "Factual Determinations" under the heading of "[a]dditional information provided by the 404(q) agency."<sup>249</sup> The District also discloses the clarifying letter from the Alaska Department of Fish and Game (ADFG) to EPA, in which ADFG points out that a report cited by the EPA is unpublished and provides some additional alternate citations. There is no evidence to suggest, nor reason to believe the District improperly interpreted or applied information from the FEIS in its statements regarding the portfolio effect. *RFA III.B.2. does not have merit.* 

# III.B.3. The Finding of Conflict Between the Mine and the Fisheries is Unsupported

In RFA III.B.3, the Appellant suggests that the District creates a false dichotomy by stating that there is a conflict between the fisheries and the mineral resources. The Appellant is referring to this paragraph in the ROD:

In the event of human error and/or a catastrophic event, the commercial and/or subsistence resources would be irrevocably harmed, and there is no historical scientific information from other catastrophic events to support restoration of the fishery to its pre-impacted state. Nor is there any way to determine that the cost of remedy in the case of a damaged or ruined fishery could be compensated based on speculative revenues to from the mining

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<sup>&</sup>lt;sup>245</sup> FEIS\_000518 (incorrectly cited in the Request for Appeal as ROD\_000518).

<sup>&</sup>lt;sup>246</sup> FEIS\_000517.

<sup>&</sup>lt;sup>247</sup> Request for Appeal 48.

<sup>&</sup>lt;sup>248</sup> ROD 000626-41.

<sup>&</sup>lt;sup>249</sup> See, e.g. ROD 000388, 452, 472.

operation. In contrast, the minerals contained within the mine site will remain in perpetuity, and opportunity exists to mine those minerals at a future date should mining technology improve to eliminate the predicted detriments or should anthropogenic or other changes in the fishery cause the value or presence of the fishery to decline such that mining is no longer a threat to the resource. A future project, incorporating improved technologies that can protect irreplaceable fishery resources may be supportable given that the resources will still be available for extraction at a future date. 250

The Appellant points out that other salmon fisheries in Alaska exist in conjunction with other resource extraction industries, and states that the idea that the Bristol Bay fishery would be harmed by the project is contrary to the record. The Appellant states that there is no reference to what "human error" refers to outside of potential spills, which the District itself found to be not reasonably foreseeable on a large scale, and highly probable on a small scale, but with limited consequences.

The Appellant objects to the suggestion in the ROD that it should wait for "[a] future project, incorporating improved technologies that can protect irreplaceable fishery resources..."251 asserting that the project is already designed using the most recent technological advances and would therefore be safer than any current mine. The Appellant also points out that if this were the threshold, no project would ever get approved because technology is always improving.

The Appellant points to 33 C.F.R. §320.4(a)(1), which states that the PIR should "reflect the national concern for protection and utilization of important resources" and that by asserting that the resources can always be extracted later, the District fails to reflect the current public interest in utilization of the resources.

The paragraph cited above begins by discussing catastrophic harms to fisheries, and then indicates that improved technologies may lead to a permittable project in the future. This is not supported in the record. The District states in more than one location in the ROD that damages to fisheries are not anticipated, so citing potential damages to fisheries, specifically related to catastrophic or human error events, as a basis for an adverse PIR conclusion is contradictory. RFA III.B.3. has merit. On remand, the District should consider how it addresses the potential for catastrophic failure and damages to fisheries, and clearly support its analysis in the decision based on information in the administrative record.

<sup>251</sup> Ibid.

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<sup>&</sup>lt;sup>250</sup> ROD\_000165.

## IV. The ROD Overstates Adverse Effects by Failing to Fully Consider all Mitigation.

1. FINDING: RFAs IV.A., IV.B., IV.C., and IV.D. do not have merit.

**2. ACTION:** No further action.

3. **DISCUSSION:** The Appellant asserts that the ROD omits information that should have been included in the final permit decision:

First, because the CMP was summarily rejected, no compensatory mitigation was factored into the significant degradation or PIR analysis. Second, because the ROD was issued before the cooperating and consulting agencies and parties had completed their review processes, the mitigation that would have been imposed under the ESA, National Historic Preservation Act (NHPA), and CWA Section 401 decisions was also never considered by the District and factored into its decision-making.<sup>252</sup>

In accordance with USACE regulatory guidance<sup>253</sup>, a permit cannot be issued prior to completion of certain elements of the review, such as Section 7 ESA consultation, Essential Fisheries Habitat (EFH) consultation, CWA Section 401 Water Quality Certification (WQC), and Section 106 Historic Preservation Act consultations. The Appellant believes some of the requirements that would have been included in some of those processes should have been taken into account in the District's decision. The Appellant provided the following specific points under RFA IV.

IV.A. Compensatory Mitigation. The Appellant states that it demonstrated willingness to comply with "extensive compensatory mitigation" and that the District summarily rejected CMP7; thereby, completing the significant degradation and PIR analyses based on no compensatory mitigation at all. The Appellant asserts that "the District's decision to assume no compensatory mitigation would be implemented renders the decision arbitrary and capricious."254

The Appellant asserts that it appears the District decided to deny based on a PIR finding and for that reason, did not give PLP an opportunity to address the CMP7 deficiencies, choosing instead to make the decision based on no compensatory mitigation. The Appellant believes the District should have assumed CMP7 would be finalized and taken the mitigation into account in their evaluations.

<sup>254</sup> *Ibid*.

<sup>&</sup>lt;sup>252</sup> Request for Appeal 50.

<sup>&</sup>lt;sup>253</sup> Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program, Juy 2009 (SOP).

The District cannot "assume" a CMP will be finalized when making a permit decision. The regulation at 33 C.F.R. §332.3 (k)(2)(ii) states that for an individual permit that requires permittee-responsible mitigation, the special conditions must incorporate, by reference, the final mitigation plan approved by the district engineer. This means, if a permit is to be authorized, a final approved mitigation plan must be in place. Further, there is no evidence that an approved mitigation plan would have altered the District's final decision. Because the District determined that CMP7 was inadequate, it was reasonable for it not to be factored into the other analyses. RFA IV.A. does not have *merit,* however, compensatory mitigation is discussed at length in RFA II.

IV.B. Cultural and Historic Resources. The Appellant states that since the ROD was issued prior to the National Historic Preservation Act Section 106 (Section 106) process was complete, the District's decision does not include consideration of the mitigation that would have been incorporated under the Programmatic Agreement being developed.<sup>255</sup> The Appellant asserts that the District's decision terminated the Section 106 process prior to resolution. The Appellant further states that the District:

... speculates on impacts to cultural resources in the ROD, including that the Project "would adversely affect cultural resources and access to cultural areas" and that "Federally Recognized Tribes have expressed that all of the Bristol Bay landscape, including the landscape in the vicinity of the mine site, is culturally important." The District presents this as settled fact, but no cultural landscapes have yet been recognized as protected under Section 106.<sup>256</sup>

The District did not assert that these areas were formally recognized by the District, the State Historic Preservation Office, or the Advisory Council on Historic Preservation as traditional cultural landscapes; only that the Tribes had expressed that the areas are culturally important. This discussion occurs in the paragraph addressing comments received relative to the PIR factor and does not itself represent a conclusion.<sup>257</sup> The District's statement that Federally recognized tribes have expressed that the Bristol Bay landscape is culturally important is accurate and supported in the AR. For example, the Appellant acknowledges in the next paragraph of the Request for Appeal that the Nondalton tribe has made such an assertion with its proposed Qiyhi Qelahi cultural landscape.<sup>258</sup> In addition, the AR reflects that the United Tribes of Bristol Bay suggested that the Nushagak River area is a traditional cultural landscape.<sup>259</sup>

Historic properties are a subset of cultural resources that have been determined eligible for listing in the National Register of Historic Places (National Register). Not all cultural resources are listed in the National Register as historic places. Section 106 of the

<sup>&</sup>lt;sup>255</sup> Request for Appeal 50-51.

<sup>&</sup>lt;sup>256</sup> Request for Appeal 51.

<sup>&</sup>lt;sup>257</sup> ROD 000152-53.

<sup>&</sup>lt;sup>258</sup> AR 0009750\_001255-1259.

<sup>&</sup>lt;sup>259</sup> AR 0001000 003490.

National Historic Preservation Act (NHPA) requires Federal agencies to consider the effects of their undertakings on historic properties. In addition, the Corps has a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes and villages.

The Appellant states that even if the areas were recognized as traditional cultural landscapes, the determination would not preclude development in the area, and that if impacts to a traditional cultural landscape were identified, measures to avoid or minimize such impacts would be addressed through the Section 106 process. The Appellant then asserts that the District's conclusion is based on "layers of speculation that such a cultural landscape would be recognized, that its use would be impacted by the Project, and that any such impacts could not be avoided or mitigated under a Section 106 Programmatic Agreement."260 The Appellant then concludes that this is "far from a probable impact" that is properly considered in the PIR.

The Appellant states that the FEIS "found no known National Register-eligible cultural landscapes, but properly noted that "[f]urther identification efforts under Section 106 may also involve the analysis of cultural landscapes."261 The citation the Appellant refers to is as follows:

Currently, there would be no known National Register-eligible sites in the Alternative 1a or the Alternative 1 project footprints, and one known historic property in the footprint of Alternative 2 and Alternative 3. There are numerous cultural resource features spread across the landscape that represent a wide range of site types. Many of these may warrant additional analysis as potential historic properties. Further identification efforts under Section 106 may also involve the analysis of cultural landscapes, traditional cultural properties, and/or archaeological or historic districts in the permit area.

Identification efforts will continue following the FEIS. If the project is permitted, the Section 106 process would be concluded by the finalization of a PA signed by the USACE, ACHP, and the Alaska State Historic Preservation Office. Among other provisions, it is anticipated that the PA will require that additional identification efforts be completed by PLP to meet the Reasonable and Good Faith Standard (36 C.F.R. Part 800.4[b][1]). The identification methods, areas to be subject to field investigations, and associated consultation procedures for evaluating resources, assessing effects, and resolving adverse effects are outlined in the PA, included as Appendix L of the FEIS.<sup>262</sup>

<sup>262</sup> FEIS 003427.

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<sup>&</sup>lt;sup>260</sup> Request for Appeal 51.

<sup>&</sup>lt;sup>261</sup> Ibid.

The FEIS also identifies 67 known Alaska Heritage Resource Sites, <sup>263</sup> 56 place names, <sup>264</sup> and 246 interview-identified cultural resources <sup>265</sup> in the EIS analysis area. The District indicates in its PIR that there are two known historic properties that would be directly or indirectly affected by the proposed project. This is in the PIR evaluation of historic, cultural, scenic, and recreational values. This section also discusses the Section 106 coordination process and development of the PA. The District states in this section that:

Consultation under Section 106 was not completed, due to the decision outlined in this ROD, as finishing consultation is not required for activities which are ultimately not permitted. Although identification and evaluation of historic properties that may be impacted by the proposed project is not yet completed, nor a determination of effects on historic properties, the project is anticipated to cause adverse effects to historic properties.<sup>266</sup>

As previously stated, USACE guidance prohibits the issuance of a permit prior to the completion of the Section 106 process. There is no law, regulation, Executive Order, or officially promulgated Corps policy guidance requiring conclusion of the Section 106 process prior to a permit denial decision. The AR reflects that there are cultural and historic resources that may be impacted by the project, and the District analysis based on the information available was not unreasonable. There is no evidence to suggest, or reason to believe, the District applied undue weight to the Cultural and Historic resources PIR factor. *RFA IV.B. does not have merit.* 

**IV.C. Water Quality.** The Appellant states that the District's findings on water quality "fail to include the states input under Section 401." The Appellant points to the PIR table, which indicates:

Evaluation of the request for certification under Section 401 of the Clean Water Act has not been completed by the State of Alaska as of the time of this decision. The proposed project would have an adverse effect to water quality at the local level and a negligible adverse impact to water quality at the regional level.<sup>269</sup>

The Appellant asserts that the State's 401 certification would include conditions that would have further reduced any adverse impacts to water resources, but because the District's decision was finalized prior to the State's 401 decision, the state conditions were not factored in.

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<sup>263</sup> FEIS_001360.

<sup>264</sup> FEIS_001376.

<sup>265</sup> FEIS_001381.

<sup>266</sup> ROD_000152.

<sup>267</sup> SOP 32.
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<sup>268</sup> Request for Appeal 51-52.

<sup>269</sup> ROD 000527.

Under Section 401 of the CWA, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States unless a Section 401 water quality certification is issued, or certification is waived. States and authorized tribes where the discharge would originate are generally responsible for issuing water quality certifications. In cases where a state or tribe does not have authority, EPA is responsible for issuing certification.<sup>270</sup>

The District lists water quality as one of the specific public interest factors on which the adverse public interest finding is based.<sup>271</sup>. The Appellant states that the FEIS did not find a significant adverse effect to water quality at any level. As previously discussed, the PIR includes not only FEIS conclusions, but also includes analysis of all comments received and the effects of the overall project on each PIR factor. It is also important to note that significant is not one of the standards for the PIR. As noted in RFA III, the District assigns adverse, beneficial, or no effect to each of the PIR factors.

As with the Section 106 process described above in RFA IV.C., the District cannot proceed with a permit authorization prior to a State 401 WQC decision. There is no law, regulation, Executive Order, or officially promulgated Corps policy guidance requiring conclusion of the 401 WQC decision prior to a permit denial decision. The District clearly states this in the ROD:

Evaluation of the request for certification under Section 401 of the Clean Water Act has not been completed by the State of Alaska as of the time of this decision. Due to the decision outlined in this ROD, a water quality certification is not required for activities under DA authority which are ultimately not permitted."<sup>272</sup>

There is no evidence to suggest, or reason to believe, the District applied undue weight to the water quality PIR factor. *RFA IV.C. does not have merit.* The Appellant again mentions another Alaska mining project. As stated in the discussion of RFA I.D., while there may be similarities between projects, each project is evaluated independently based on unique facts, circumstances, and site conditions that drive the decision-making process. A favorable or unfavorable decision on a specific project is not a factor in evaluation of future similar projects.

#### IV.D. Endangered Species

The Appellant states that the ROD's findings on endangered species impacts does not include the biological opinions (BO's) of the National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (FWS), and therefore fails to include final input from these experts. The Appellant also states that the draft BO from FWS does not support a

<sup>271</sup> ROD 000165.

<sup>&</sup>lt;sup>270</sup> 33 USC 1341.

<sup>&</sup>lt;sup>272</sup> ROD 000147.

finding of significant impact for endangered species, specifically that the project is "not likely to result in the destruction or adverse modification of critical habitat of the northern sea otter" and "not likely to jeopardize the continued existence of" northern sea otters or Alaska-breeding Steller's eiders."273

Section 7 of the Endangered Species Act (ESA) is the mechanism by which Federal agencies coordinate with the services (NMFS and FWS) to ensure that actions they take, including those they fund or authorize, do not jeopardize the continued existence of any ESA listed species. The Appellant asserts that the final BOs would have contained mitigation measures to minimize potential impacts on threatened and endangered species, and because they were not finalized prior to the ROD, those measures were not factored into the District's decision. The Appellant points to ROD Attachment B7, which states, in part:

Given the low likelihood of these impacts since mitigation measures from consultations with USFWS and NMFS would be implemented, incompatible activities would have a reduced impact on threatened and endangered species. Construction impacts would be minor and short-term, while vessel operations would be minor, but long-term.<sup>274</sup>

The Appellant objects to the District acknowledging this, yet still finding significant impacts to threatened and endangered species. The Appellant also points to ROD section B3.1.1.6. finding of adverse effects on endangered species without mentioning that those impacts could have been addressed through the BO's.

The District's conclusion relative to ESA, in the absence of a final BO from either of the services, is reasonable. The statement above from the factual determination matrix is in the notes column. It is an acknowledgement that the BO's, if finalized, would contain mitigation measures. While the draft FWS BO was coordinated just before the ROD was finalized, there is no guarantee of the exact content of a final BO. In addition, there is no evidence that a draft NMFS BO was forthcoming, nor what its contents and conclusions would have been. It was reasonable for the District not to rely on these unfinished processes in its analysis.

The District once again points out that the process "was not completed, due to the decision outlined in this ROD, as finishing consultation is not required for activities which are ultimately not permitted."275 Although a permit cannot be issued prior to conclusion of the Section 7 consultation process, there is no law, regulation, Executive Order, or officially promulgated Corps policy guidance requiring conclusion of Section 7 ESA consultation prior to a permit denial decision. RFA IV.D. does not have merit.

<sup>&</sup>lt;sup>273</sup> Request for Appeal 52, citing draft FWS Biological Opinion at AR 0017750 000886.

<sup>&</sup>lt;sup>274</sup> ROD 000361.

<sup>&</sup>lt;sup>275</sup> ROD 000144.

The Appellant summarizes RFA IV. as follows:

In sum, the ROD improperly omits key mitigation that would have offset or avoided many of the adverse impacts relied on to support the adverse permit decision. The Division Engineer should invalidate and remand the ROD, and instruct the District to ensure that all mitigation, including compensatory and mitigation imposed by state and federal agencies, is properly factored into the permit decision before making the significant degradation and public interest findings.

There is no evidence that the District acted improperly by not including the results of consultations and processes that were not yet finalized in its decision. For the reasons discussed above. RFAs IV.A.-IV.D. do not have merit.

V. The ROD Fails to Adequately Consider the State's Interests as the Landowner, and its Designation of the Land for Mineral Development

1. FINDING: RFA V does not have merit.

**2. ACTION:** No further action.

3. **DISCUSSION:** The Appellant points to Section B3.2.2 of the ROD, where the District states there are "unresolved conflicts as to resources use including unresolved conflicts identified through the State of Alaska."276 The Appellant states this is incorrect and is misrepresentative of the record and of the State's position. The Appellant describes the agreement known as the Cook Inlet Exchange, in which the State of Alaska obtained the land that includes the Pebble Deposit, specifically for its potential for economic opportunity from mining development.<sup>277</sup> Portions of these acquired lands were later incorporated into the Bristol Bay Area Plan (BBAP).

The BBAP is summarized in Chapter 3.2.2.1 of the FEIS which describes where the various project elements fall within each of the designated regions as follows:

The Bristol Bay Area Plan divides the Bristol Bay area into 20 regions with management units. The mine site would be in Region 6. The transportation corridor would be in regions 6, 8, and 10 under Alternative 1a; regions 6, 9, and 10 under Alternative 1; and regions 6, 8, and 9 under Alternative 2 and Alternative 3. At the mine site, Region 6 is designated for mineral development, among other uses; and managed to ensure that impacts to the anadromous and high-value resident fish streams are avoided, reduced, or mitigated as appropriate in the permitting processes.<sup>278</sup>

<sup>&</sup>lt;sup>276</sup> ROD 000164.

<sup>&</sup>lt;sup>277</sup> Request for Appeal 53.

<sup>&</sup>lt;sup>278</sup> FEIS 003601.

In Chapter 4.2.3.2 of the FEIS, the District states that the proposed project "would generally be consistent with the plan's goals for the use of subsurface resources, which call for making metallic and non-metallic minerals available to contribute to the mineral inventory and independence of the US generally and Alaska specifically, while protecting the integrity of the environment and affected cultures."279

The Appellant cites 33 C.F.R. §325.2(a)(6), which states "If a district engineer makes a decision on a permit application which is contrary to state or local decisions (33 C.F.R. § 320.4(j)(2) & (4)), the district engineer will include in the decision document the significant national issues and explain how they are overriding in importance."

For context, the regulations at 33 C.F.R. §320.4(j)(2) and (4) read as follows:

- (2) The primary responsibility for determining zoning and land use matters rests with state, local and tribal governments. The district engineer will normally accept decisions by such governments on those matters unless there are significant issues of overriding national importance. Such issues would include but are not necessarily limited to national security, navigation, national economic development, water quality, preservation of special aquatic areas, including wetlands, with significant interstate importance, and national energy needs. Whether a factor has overriding importance will depend on the degree of impact in an individual case.
- (4) In the absence of overriding national factors of the public interest that may be revealed during the evaluation of the permit application, a permit will generally be issued following receipt of a favorable state determination provided the concerns, policies, goals, and requirements as expressed in 33 C.F.R. parts 320-324, and the applicable statutes have been considered and followed: e.g., the National Environmental Policy Act; the Fish and Wildlife Coordination Act; the Historical and Archeological Preservation Act; the National Historic Preservation Act; the Endangered Species Act; the Coastal Zone Management Act; the Marine Protection, Research and Sanctuaries Act of 1972, as amended; the Clean Water Act. the Archeological Resources Act, and the American Indian Religious Freedom Act. Similarly, a permit will generally be issued for Federal and Federally-authorized activities; another federal agency's determination to proceed is entitled to substantial consideration in the Corps' public interest review.

The Appellant further states that:

The Pebble deposit is located on state-owned land, and the State has specifically designated the land for mineral development. The District's findings on land use are directly counter to the State's designation of this

<sup>&</sup>lt;sup>279</sup> FEIS 004252-53.

land. The ROD fails to document or support an "overriding national issue" that justifies overruling the State's mineral use designation. The ROD does not explain why the State's designation of the land for mineral development was not conclusive as to land use, nor how the State's interest in economic development of the land was weighed in the decision.<sup>280</sup>

The ownership of the land and the existence of a land-use plan does not equate to a decision by a state, local, or tribal government regarding land-use as discussed in the regulations. Designation of the land for mineral development does not represent the Corps' "receipt of a favorable state determination" 281 The AR supports that the District contacted the State of Alaska in June of 2019 regarding BBAP. In its response, the State indicated that some of the areas of the proposed project have co-designations to be managed for minerals and habitat, and some areas are designated for habitat, public recreation, and tourism. The State also indicated that:

"...areas co-designated and classified as Minerals and Habitat are to be managed for the exploration and development of mineral deposits, subject to state permitting requirements and the protection of sensitive habitats. Mineral development may be authorized after a robust public process and with the appropriate stipulations or measures identified as needed to protect fish, wildlife, or their habitats." 282 (emphasis added)

The State also indicated that at the time, ADNR had not received applications for the various aspects of the project and was therefore not able to make a determination about consistency with the BBAP, as it would be pre-decisional. "When applications are received for this project, the Department will adjudicate those applications based on our statutes, regulations and policies."283

There is no evidence that the District's public interest review (PIR) findings on land use are counter to the State's designations. The District describes "both adverse and beneficial changes in land use at local and regional scales."284 In this section of its PIR, the District provides several statements regarding the potential adverse and beneficial effects on land use and concludes with the statement that: "No land use authorizations have been applied for, therefore no land use authorizations have been denied or approved. The lack of denials or approvals does not inform the determination whether the proposed project is contrary to the public interest."285 Furthermore, the District clearly states in the consideration of public comments discussion of the Land Use public interest factor that "[t]here are no known issues of overriding national importance." 286

<sup>&</sup>lt;sup>280</sup> Request for Appeal 54.

<sup>&</sup>lt;sup>281</sup> 33 CFR 320.4(j)(4).

<sup>&</sup>lt;sup>282</sup> AR 0009250 000306-08.

<sup>&</sup>lt;sup>283</sup> AR 0009250 000302-303.

<sup>&</sup>lt;sup>284</sup> ROD 000541.

<sup>&</sup>lt;sup>285</sup> Ibid.

<sup>&</sup>lt;sup>286</sup> ROD 000540.

The District was asked during the Conference about the statement that there were "unresolved issues" with the State of Alaska regarding resource use at ROD 00164. The District responded that the statement is an acknowledgement of the incomplete nature of the State's process, and that it does not represent an adverse finding, rather it is simply a disclosure. <sup>287</sup>

The Appellant also states in the Request for Appeal:

Moreover, the District's decision in this case sets such a stringent standard for 404 permitting that it effectively denies any future mineral development in this area and establishes a precedent that will make it very difficult to develop minerals anywhere in the State of Alaska. The District's refusal to apply the flexibility allowed under the 2018 Alaska MOA and decision to instead impose a more stringent standard regarding significant degradation, compensatory mitigation and the public interest effectively precludes future development in this area, even on state lands that were specifically designated for mineral development.<sup>288</sup>

The Appellant's concerns regarding the District's decisions on significant degradation, compensatory mitigation, and public interest are addressed in detail in the discussion of findings for RFAs I-IV. The Appellant's statement that this permit denial sets a standard for all other 404 permitting in Alaska is unfounded. As stated in the discussion of RFA I.D., while there may be similarities between projects, each project is evaluated independently based on unique facts, circumstances, and site conditions that drive the decision-making process. A favorable or unfavorable decision on a specific project is not a factor in evaluation of future similar projects.

The Appellant states that the District's decision violates the statutory compromise established in the Alaska Statehood Act and the Alaska National Interest Lands Conservation Act. These Acts are not considered finalized decisions with regard to the specific project. The State of Alaska's plan to set aside lands based on their mineral resources does not provide any evaluation of a specific project nor does it determine compliance with other federal laws, regulations, policies, executive orders or official guidance. Furthermore, as stated above, the District did not make an adverse finding relative to the land use public interest factor, and it specifically stated that the lack of state denials or approvals does not inform evaluation of this factor.

For the reasons discussed above, **RFA V does not have merit.** 

<sup>288</sup> Request for Appeal 54-55.

<sup>&</sup>lt;sup>287</sup> MFR 15.

#### VI. RFA Conclusion

In this section the Appellant summarizes RFAs I.-V. regarding the District's significant degradation finding, decision on compensatory mitigation, and PIR determination. The Appellant states that these decisions are not supported by substantial evidence in the administrative record and are contrary to law and USACE regulations and guidance. The Appellant specifically points to the potential for TSF failure as contrary to the regulatory requirement that decisions be based on an evaluation of probable impacts. There are no specific reasons for appeal to address in RFA VI., as significant degradation, compensatory mitigation, PIR, and TSF are addressed above in RFAs I. through V.

The Appellant concludes its Request for Appeal with the following:

The Division Engineer should disapprove the entirety of the District's decision pursuant to 33 C.F.R. Section 331.9(b) and instruct the District to: 1) properly apply USACE guidance on compensatory mitigation in Alaska to the Project, including regarding flexibility on out-of-kind mitigation and applicable HUC size; 2) ensure the significant degradation and PIR decisions are supported by the permitting record, including the FEIS, and consistent with USACE regulations and guidance; 3) ensure that all mitigation, including compensatory and mitigation imposed by state and federal agencies, is properly factored into the permit decision before any findings on significant degradation or public interest are made; 4) ensure that the permit decision properly weighs the benefits and detriments of all the relevant public interest factors, including the interests of state and tribal landowners, based on the "probable" impacts of the Project. Even if the Division Engineer finds in favor of the Appellant on only some of the reasons for appeal stated herein, the remedy must be a reversal of the entire decision. The significant degradation finding, decision on compensatory mitigation, and PIR determination are all interrelated, so that the invalidation of one requires reconsideration of all. For example, the invalidation of the significant degradation finding would call into question the validity of the determination that in-kind, in-watershed compensatory mitigation was required. Similarly, any change to the factors considered under the significant degradation finding would also call into question the factors considered under the PIR and vice versa. And any change in the decision on compensatory mitigation would have to be factored into both the PIR and significant degradation findings.

**Additional Information:** Through the e-mail dated May 4, 2022, the Appellant requested that the internal District email dated November 16, 2020, transmitting the TIA and its attachment be included in the AR. As discussed above on page 4 of this document, the RO has determined that inclusion of the TIA in the AR is not appropriate. On remand, and in accordance with internal Corps guidance, the District should not release the TIA, but should include a statement in the AR indicating that a TIA was

prepared in compliance with Executive Order 12630<sup>289</sup> and its supplement, and Attorney General's Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings.

Conclusion: After reviewing and evaluating the Appellant's reasons for appeal, the District's AR, and recommendation of the RO, and for the reasons stated above, I find that portions of this appeal have merit as detailed in the above discussions. Therefore, the permit decision is being remanded to the Alaska District Engineer for further analysis and documentation in accordance with 33 C.F.R. §331.10(b). The District Engineer's decision made pursuant to this remand becomes the final Corps permit decision.

This concludes the Administrative Appeals Process.

Kirk E. Gibbs Brigadier General, U.S. Army Commanding

<sup>&</sup>lt;sup>289</sup> Executive Order 12630 of Mar. 15, 1988, 53 FR 8859, 3 CFR, p. 554.

### LIST OF ACRONYMS AND ABBREVIATIONS

404(b)(1) Matrix Factual Determination Matrix

ACHP Advisory Council on Historic Preservation

ADFG Alaska Department of Fish & Game

ADNR Alaska Department of Natural Resources

AR Administrative Record

ARD Aquatic Resources Delineation

ARNI Aquatic Resources of National Importance

BBAP Bristol Bay Area Plan

BMP Best Management Practices

BO or BiOp Biological Opinion

CAR Comment Analysis Report

C.F.R. Code of Federal Regulations

CMP Compensatory Mitigation Plan

CWA Clean Water Act

DEIS Draft Environmental Impact Statement

EPA Environmental Protection Agency

ESA Endangered Species Act

FEIS Final Environmental Impact Statement

FWS Fish and Wildlife Service

FOIA Freedom of Information Act

HUC Hydrologic Unit Code

JD Jurisdictional Determination

LEDPA Least Environmentally Damaging Practicable Alternative

LPB Lake Peninsula Borough

MSR Microbial Sulfate Reduction

NAP Notification of Appeal Process

NEPA National Environmental Policy Act

NFK North Fork Koktuli

NHPA National Historic Preservation Act

NMFS National Marine Fisheries Service

NRWTUA Nushagak River Watershed Traditional Use Area

NWD USACE Northwestern Division

PIR Public Interest Review

PIR Matrix Public Interest Review Matrix

PLP Pebble Limited Partnership

POA USACE Alaska District

POD USACE Pacific Ocean Division

RFA Reason for Appeal

RO Review Officer

ROD Record of Decision

SFK South Fork Koktuli

SRB Sulfate Reducing Bacteria

TSF Tailings Storage Facility

TIA Takings Implication Assessment

USACE US Army Corps of Engineers

USFWS US Fish & Wildlife Service

UTC Upper Talarik Creek

WQC Water Quality Certification

WTP Water Treatment Plant

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